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Art Unit: 1617
Phone: 272-0628
Serial Number: 10 / 065326

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Rem 1A51
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Search Notes

- Jan Pelletier -

Access DB#

140501

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name Jennifer Kim Examiner # 77469 Date: 12/15/04
Art Unit 1617 Phone Number 30628 Serial Number 10/065,326
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If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Method of Using Omega-3 fatty acids
Inventors (please provide full names): Zicker et al.

Earliest Priority Filing Date: 10/3/2002

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search claim 1-7.

THY,

7/11

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FILE LAST UPDATED: 14 Dec 2004 (20041214/ED)

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L48 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:293399 HCAPLUS

DN 140:281406

ED Entered STN: 09 Apr 2004

TI Method of using omega-3 fatty acids

IN Zicker, Steven Curtis; Dodd, Chadwick E.; Jewell, Dennis; Fritsch, Dale A.

PA USA

SO U.S. Pat. Appl. Publ., 3 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM A61K031-202

NCL 514560000

CC 1-11 (Pharmacology)

Section cross-reference(s): 18

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004068010	A1	20040408	US 2002-65326	20021003 <--
PRAI	US 2002-65326		20021003 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004068010	ICM	A61K031-202
	NCL	514560000

AB A method for influencing behavior in young, adult or aged pet animals which comprises systemically administering a behavior influencing quantity of an omega-3 fatty acid or mixture of omega-3 fatty acids.

ST pet animal behavior omega 3 fatty acid

IT Behavior

(disorder; method of using omega-3 fatty acids)

IT Development, mammalian postnatal

(juvenile; method of using omega-3 fatty acids)

IT Aging, animal

Behavior

Canis familiaris

Felis catus**Pet animal**

(method of using omega-3 fatty acids)

IT **Fatty acids, biological studies**

RL: FFD (Food or feed use); PAC (Pharmacological activity); BIOL

(Biological study); USES (Uses)

(polyunsatd., n-3; method of using

omega-3 fatty acids)

L48 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:817939 HCAPLUS

DN 139:291575

ED Entered STN: 17 Oct 2003

TI Dietary methods for canine performance enhancement

IN Davenport, Gary Mitchell; Kelley, Russell Lee; Altom, Eric Karl; Lepine, Allan John

PA USA

SO U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM A23L001-00

ICS A61K047-00

NCL 426601000; 426635000; 424442000

CC 18-4 (Animal Nutrition)

Section cross-reference(s): 17

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2003194478	A1	20031016	US 2002-121325	20020412	
	WO 2003086100	A1	20031023	WO 2003-US11509	20030414	
	W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW		
	RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
PRAI	US 2002-121325	A	20020412			

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

US 2003194478	ICM	A23L001-00
	ICS	A61K047-00
	NCL	426601000; 426635000; 424442000

AB A method for increasing the hunt performance of a hunting mammal (**dog**) which includes orally administering to the mammal an effective amount of a **diet** comprising unsatd. fatty acid(s) (eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA) or both) in a total amount of the **diet** greater than about 0.20 weight%. The invention also provides **dietary** compns. that yield other beneficial results.

ST unsatd fatty acid **feed** hunting **dog** energy metab; EPA
DHA **feed** hunting **dog** energy metab

IT Feed

(Eukanuba; dietary methods for canine performance enhancement)

IT **Canis familiaris**(bird **dog**; **dietary** methods for canine performance enhancement)

IT Fats and Glyceridic oils, biological studies

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (chicken; dietary methods for canine performance enhancement)

IT Body temperature
 Feed energy
 Feeding experiment
 Thermoregulation, biological
 (dietary methods for canine performance enhancement)

IT Carbohydrates, biological studies
 Fats and Glyceridic oils, biological studies
 Proteins
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (dietary methods for canine performance enhancement)

IT Metabolism
 (energy; dietary methods for canine performance enhancement)

IT Flours and Meals
 (flaxseed; dietary methods for canine performance enhancement)

IT Flaxseed
 (flour and meal; dietary methods for canine performance enhancement)

IT **Canis familiaris**
 (hunting dog, English Pointer; dietary methods for canine performance enhancement)

IT **Canis familiaris**
Exercise
 (hunting dog; dietary methods for canine performance enhancement)

IT Mammalia
 (hunting mammal; dietary methods for canine performance enhancement)

IT Fish
 (meal; dietary methods for canine performance enhancement)

IT **Fatty acids, biological studies**
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (polyunsatd., n-3; dietary methods for canine performance enhancement)

IT Fatty acids, biological studies
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (polyunsatd., omega-6; dietary methods for canine performance enhancement)

IT Fats and Glyceridic oils, biological studies
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (unsatd.; dietary methods for canine performance enhancement)

IT 6217-54-5, Docosahexaenoic acid 10417-94-4, Eicosapentaenoic acid
 32839-34-2, Docosapentaenoic acid
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (dietary methods for canine performance enhancement)

L48 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:514957 HCAPLUS
 DN 139:179279
 ED Entered STN: 07 Jul 2003
 TI Effects of dietary n-6 and n-3 fatty acids and vitamin E on the immune response of healthy geriatric dogs
 AU Hall, Jean A.; Tooley, Katie A.; Gradin, Joseph L.; Jewell, Dennis E.; Wander, Rosemary C.
 CS Department of Biomedical Sciences, College of Veterinary Medicine, Oregon State University, Corvallis, OR, 97331-4802, USA
 SO American Journal of Veterinary Research (2003), 64(6), 762-772
 CODEN: AJVRAH; ISSN: 0002-9645
 PB American Veterinary Medical Association
 DT Journal
 LA English
 CC 18-5 (Animal Nutrition)
 AB Objective-To determine the effect of dietary n-6 to n-3 fatty acid ratios and α -tocopheryl acetate concentration on immune functions and T cell

subpopulations in healthy **dogs**. Animals - Thirty-two 7- to 10-yr old female Beagles. Procedure-For 17 wk, **dogs** were fed food that contained low (1.4:1) or high (40:1) ratios of n-6 to n-3 fatty acids in combination with 3 concns. of all rac- α -tocopheryl acetate (low, 17 mg/kg of food; medium, 101 mg/kg; high, 447 mg/kg). **Dogs** were inoculated twice with a keyhole limpet hemocyanin suspension at 13 and 15 wk. Results-After 12 wk, **dogs** consuming low concns. of α -tocopheryl acetate had lower percentages of CD8+ T cells, compared with **dogs** consuming medium or high α -tocopheryl acetate concns. Also, **dogs** consuming low α -tocopheryl acetate concns. had higher CD4+ to CD8+ T cell ratios. On day 4 of week 15, the percentage of CD8+ T cells was highest in **dogs** fed medium concns. of α -tocopheryl acetate, compared with other **dogs**; however, the CD4+ to CD8+ T cell ratio was higher only in **dogs** fed low concns. of α -tocopheryl acetate with high concns. of n-3 fatty acids. **Dogs** consuming low concns. of n-3 fatty acids with medium concns. of α -tocopheryl acetate had the largest delayed-type hypersensitivity (DTH) skin test response. Conclusions and Clin. Relevance-An optimum amount of dietary α -tocopheryl acetate concentration, regardless of the dietary n-6 to n-3 fatty acid ratio, stimulates the CD8+ T cell population. Effects of an optimum amount of dietary α -tocopheryl acetate concentration on the DTH response are blunted by dietary n-3 fatty acids.

- ST **dog** aging n3 n6 fatty acid nutrition immune response; vitamin E
nutrition immune response aging **dog**
- IT **Canis familiaris**
(beagle; effects of dietary n-3 and n-6 fatty acids and vitamin E on
the immune response of healthy geriatric **dogs**)
- IT **Fatty acids, biological studies**
Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(blood; effects of dietary n-3 and n-6 fatty acids
and vitamin E on the immune response of healthy geriatric **dogs**
)
- IT Immunity
(cell-mediated; effects of dietary n-3 and n-6 fatty acids and vitamin
E on the immune response of healthy geriatric **dogs**)
- IT Aging, animal
CD4-positive T cell
CD8-positive T cell
Erythrocyte
Hematocrit
Lymphocyte
Nutrition, animal
(effects of dietary n-3 and n-6 fatty acids and vitamin E on the immune
response of healthy geriatric **dogs**)
- IT Hemoglobins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(effects of dietary n-3 and n-6 fatty acids and vitamin E on the immune
response of healthy geriatric **dogs**)
- IT **Fatty acids, biological studies**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(polyunsatd., n-3; effects of dietary
n-3 and n-6 fatty acids and vitamin E on the immune
response of healthy geriatric **dogs**)
- IT **Fatty acids, biological studies**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(polyunsatd., omega-6; effects of dietary n-3 and
n-6 fatty acids and vitamin E on the immune response of healthy
geriatric **dogs**)
- IT 59-02-9, α -Tocopherol 60-33-3, 9,12-Octadecadienoic acid
(9Z,12Z)-, biological studies 112-80-1, 9-Octadecenoic acid (9Z)-,
biological studies 506-32-1 6217-54-5 10417-94-4

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(effects of dietary n-3 and n-6 fatty acids and vitamin E on the immune
response of healthy geriatric dogs)

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Baehner, R; Blood 1977, V50, P327 HCAPLUS
- (2) Beharka, A; Methods Enzymol 1997, V282, P247 HCAPLUS
- (3) Buzina-Suboticane, K; Int J Vitam Nutr Res 1998, V68, P133 HCAPLUS
- (4) Calder, P; Br J Nutr 2002, V87(suppl 1), PS31
- (5) Calder, P; Braz J Med Biol Res 1998, V31, P467 HCAPLUS
- (6) Calder, P; Lipids 2001, V36, P1007 HCAPLUS
- (7) Calder, P; Nutr Rev 1998, V56, PS70 MEDLINE
- (8) Calder, P; Proc Nutr Soc 1998, V57, P487 HCAPLUS
- (9) Calder, P; World Rev Nutr Diet 2001, V88, P109 MEDLINE
- (10) Chandra, R; Lancet 1992, V340, P1124 MEDLINE
- (11) Chandra, R; Nutr Rev 1995, V53, PS80 MEDLINE
- (12) Coligan, J; Current protocols in immunology. Unit 7.1. Section 7.1.1-7.1.2
1992
- (13) Doyle, A; Immunology 1998, V93, P341 HCAPLUS
- (14) Exon, J; Int J Immunopharmacol 1990, V12, P699 MEDLINE
- (15) Gebhard, D; Vet Immunol Immunopathol 1992, V33, P187 MEDLINE
- (16) Goodwin, J; Clin Exp Immunol 1982, V48, P403 MEDLINE
- (17) Hall, J; Am J Vet Res 1999, V60, P319 HCAPLUS
- (18) Hall, J; Am J Vet Res 2002, V63, P104 HCAPLUS
- (19) Hartnell, A; Immunology 1993, V80, P281 HCAPLUS
- (20) Heaton, P; J Nutr 2002, V132, P1655S HCAPLUS
- (21) High, K; Clin Infect Dis 1999, V28, P717 HCAPLUS
- (22) Kalish, R; J Allergy Clin Immunol 1999, V103, P192 HCAPLUS
- (23) Kelley, D; Lipids 1998, V33, P125 HCAPLUS
- (24) Kelley, D; Lipids 1998, V33, P559 HCAPLUS
- (25) Krakowka, S; Vet Immunol Immunopathol 1987, V15, P181 HCAPLUS
- (26) Kuehl, R; Statistical principles of research design and analysis 1994, P66
- (27) Marzio, R; Immunopharmacol Immunotoxicol 1999, V21, P565 HCAPLUS
- (28) Metzger, Z; J Immunol 1980, V124, P983 HCAPLUS
- (29) Meydani, M; Mech Ageing Dev 1999, V111, P123 HCAPLUS
- (30) Meydani, S; Am J Clin Nutr 1990, V52, P557 HCAPLUS
- (31) Meydani, S; J Clin Invest 1993, V92, P105 HCAPLUS
- (32) Meydani, S; JAMA 1997, V277, P1380 HCAPLUS
- (33) National Research Council; Guide for the care and use of laboratory
animals 1985, Publication No 85-23
- (34) National Research Council Subcommittee on Dog Nutrition; Nutrient
requirements of dogs 1985, P25
- (35) Pike, J; Int J Vitam Nutr Res 1995, V65, P117 HCAPLUS
- (36) Roberts-Thomson, I; Lancet 1974, V2, P368 MEDLINE
- (37) Sanderson, P; J Nutr Environ Med 1995, V5, P119 HCAPLUS
- (38) Sandor, M; J Immunol 1995, V155, P275 HCAPLUS
- (39) Somberg, R; Vet Immunol Immunopathol 1992, V33, P17 HCAPLUS
- (40) Song, J; J Nutr 1991, V121, P284 HCAPLUS
- (41) Strasser, A; J Vet Med A Physiol Pathol Clin Med 2000, V47, P181 HCAPLUS
- (42) Strasser, A; Zentralbl Veterinarmed A 1993, V40, P720 MEDLINE
- (43) Wander, R; J Nutr 1996, V126, P643 HCAPLUS
- (44) Wander, R; J Nutr 1997, V127, P1198 HCAPLUS
- (45) Woodard, L; Lab Anim Sci 1989, V39, P222 HCAPLUS
- (46) Wu, D; Am J Clin Nutr 1996, V63, P273 HCAPLUS
- (47) Yaqoob, P; Immunology 1994, V82, P603 HCAPLUS

L48 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:74176 HCAPLUS

DN 136:278675

ED Entered STN: 28 Jan 2002

TI Influence of dietary long-chain n-3 fatty acids from Menhaden fish oil on
plasma concentrations of α -tocopherol in geriatric Beagles

AU Hall, Jean A.; Tooley, Katie A.; Gradin, Joseph L.; Jewell, Dennis

E.; Wander, Rosemary C.
 CS Department of Biomedical Sciences, College of Veterinary Medicine, Oregon
 State University, Corvallis, OR, 97331-4802, USA
 SO American Journal of Veterinary Research (2002), 63(1), 104-110
 CODEN: AJVRAH; ISSN: 0002-9645
 PB American Veterinary Medical Association
 DT Journal
 LA English
 CC 18-5 (Animal Nutrition)
 AB To determine effects of dietary n-3 fatty acids from Menhaden fish oil on
 plasma α -tocopherol concns. in Beagles. 32 Female Beagles. For 82
 days, **dogs** were fed diets that contained 1 of 2 ratios of
 n-6:n-3 fatty acids (40:1 [low n-3] and 1.4:1 [high n-3]) and 1 of 3
 concns. of all-rac- α -tocopheryl acetate (low, 17 mg/kg of diet;
 medium, 101 mg/kg; and high, 447 mg/kg) in a 2 \times 3 factorial study. Diets
 high in n-3 fatty acids significantly increased total content of n-3 fatty
 acids in plasma (17.0 g/100 g of fatty acids), compared with low n-3 diets
 (2.02 g/100 g of fatty acids). Mean \pm SEM plasma concentration of cholesterol
 was significantly lower in **dogs** consuming high n-3 diets (4.59
 \pm 0.48 mmol/L), compared with **dogs** consuming low n-3 diets
 (5.71 \pm 0.48 mmol/L). A significant interaction existed between the
 ratio for n-6 and n-3 fatty acids and amount of α -tocopheryl acetate
 in the diet (plasma α -tocopherol concentration expressed on a molar basis),
 because the plasma concentration of α -tocopherol was higher in **dogs**
 consuming low n-3 diets, compared with those consuming high n-3 diets, at
 the 2 higher amts. of dietary α -tocopheryl acetate. Plasma
 α -tocopherol concentration expressed relative to total lipid content did
 not reveal effects of dietary n-3 fatty acids on concentration of
 α -tocopherol. Plasma α -tocopherol concentration is not dependent on
 dietary ratio of n-6 and n-3 fatty acids when α -tocopherol concentration is
 expressed relative to the total lipid content of plasma.
 ST elderly **dog** nutrition n3 fatty acid tocopherol blood lipid
 IT Glycerides, biological studies
 Lipids, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (blood; influence of dietary long-chain n-3 fatty acids from Menhaden
 fish oil on plasma concns. of α -tocopherol in geriatric Beagles)
 IT Aging, animal
 (elderly; influence of dietary long-chain n-3 fatty acids from Menhaden
 fish oil on plasma concns. of α -tocopherol in geriatric Beagles)
 IT Fats and Glyceridic oils, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (fish; influence of dietary long-chain n-3 fatty acids from Menhaden
 fish oil on plasma concns. of α -tocopherol in geriatric Beagles)
 IT **Canis familiaris**
 Diet
 Nutrition, animal
 (influence of dietary long-chain n-3 fatty acids from Menhaden fish oil
 on plasma concns. of α -tocopherol in geriatric Beagles)
 IT Peroxides, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (lipid; influence of dietary long-chain n-3 fatty acids from Menhaden
 fish oil on plasma concns. of α -tocopherol in geriatric Beagles)
 IT Lipids, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (peroxides; influence of dietary long-chain n-3 fatty acids from
 Menhaden fish oil on plasma concns. of α -tocopherol in geriatric
 Beagles)
 IT **Fatty acids, biological studies**
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (polyunsatd., n-3; influence of dietary
 long-chain n-3 fatty acids from Menhaden fish oil
 on plasma concns. of α -tocopherol in geriatric Beagles)

IT **Fatty acids, biological studies**

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(polyunsatd., omega-6; influence of dietary long-chain n-
3 fatty acids from Menhaden fish oil on plasma concns. of
 α -tocopherol in geriatric Beagles)

IT 57-88-5, Cholesterol, biological studies 58-95-7, α -Tocopheryl
acetate 59-02-9, α -Tocopherol 60-33-3, 9,12-Octadecadienoic acid
(9Z,12Z)-, biological studies 112-80-1, 9-Octadecenoic acid (9Z)-,
biological studies 506-32-1 10417-94-4

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(influence of dietary long-chain n-3 fatty acids from Menhaden fish oil
on plasma concns. of α -tocopherol in geriatric Beagles)

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD

- RE
- (1) Alexander, D; J Nutr 1995, V125, P2640 HCAPLUS
 - (2) Allard, J; Lipids 1997, V32, P535 HCAPLUS
 - (3) Bieri, J; Am J Clin Nutr 1977, V30, P686 HCAPLUS
 - (4) Chautan, M; J Lipid Res 1990, V31, P2201 HCAPLUS
 - (5) Cho, S; Lipids 1994, V29, P47 HCAPLUS
 - (6) Farwer, S; Br J Nutr 1994, V72, P127 HCAPLUS
 - (7) Halliwell, B; Free radicals in biology and medicine 1999, P407
 - (8) Harris, W; Am J Clin Nutr 1997, V65, P1611S HCAPLUS
 - (9) Higdon, J; Am J Clin Nutr 2000, V72, P714 HCAPLUS
 - (10) Horwitt, M; Ann N Y Acad Sci 1972, V203, P223 HCAPLUS
 - (11) Kubo, K; Br J Nutr 1997, V78, P655 HCAPLUS
 - (12) Kuehl, R; Statistical principles of research design and analysis 1994, P66
 - (13) Langweiler, M; Am J Vet Res 1981, V42, P1681 HCAPLUS
 - (14) McGuire, S; J Nutr 1997, V127, P1388 HCAPLUS
 - (15) Meydani, M; J Nutr 1991, V121, P484 HCAPLUS
 - (16) Meydani, S; Lipids 1987, V22, P345 HCAPLUS
 - (17) Nair, P; Am J Clin Nutr 1993, V58, P98 HCAPLUS
 - (18) National Institutes of Health; Guide for the care and use of laboratory
animals 1985
 - (19) National Research Council; Recommended dietary allowances. 10th ed 1989,
P99
 - (20) National Research Council Subcommittee on Dog Nutrition; Nutrient
requirements of dogs 1985, P25
 - (21) Pillai, S; J Comp Pathol 1992, V107, P399 MEDLINE
 - (22) Pillai, S; Lipids 1993, V28, P1095 HCAPLUS
 - (23) Shapiro, A; Nutr Res 1991, V11, P539 HCAPLUS
 - (24) Song, J; J Nutr 1991, V121, P284 HCAPLUS
 - (25) Thurnham, D; Ann Clin Biochem 1986, V23, P514 HCAPLUS
 - (26) Wander, R; Am J Clin Nutr 1996, V63, P184 HCAPLUS
 - (27) Wander, R; Am J Clin Nutr 2000, V72, P731 HCAPLUS
 - (28) Wander, R; J Nutr 1996, V126, P643 HCAPLUS
 - (29) Wander, R; J Nutr 1997, V127, P1198 HCAPLUS
 - (30) Wu, D; Am J Clin Nutr 1996, V63, P273 HCAPLUS
 - (31) Yagi, K; Methods Enzymol 1984, V105, P328 HCAPLUS

L48 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:152970 HCAPLUS

DN 133:42655

ED Entered STN: 08 Mar 2000

TI N-3 fatty acids and **behavior**

AU Hamazaki, Tomohito

CS Inst. Natural Med., Toyama Med. Pharmaceutical Univ., Toyama, 930-0194,
Japan

SO Nippon Shokuhin Shinsozai Kenkyukaishi (1999), 2(2), 75-81

CODEN: NSSKFM

PB Shokuhin Shinsozai Kyogikai

DT Journal; General Review

LA Japanese

CC 18-0 (Animal Nutrition)

Section cross-reference(s): 13, 14

AB A review with 39 refs. The full-dress investigation of n-3 fatty acids started from the finding that the very low incidence in heart attack in Greenlanders are due to their huge intakes of n-3 fatty acids. The major n-3 fatty acids are α -linolenic acid, eicosapentanoic acid (EPA) and docosaheptaenoic acid (DHA). Fish oils contain a sizable amount of EPA and DHA. N-3 fatty acids prevent heart attack and other important diseases mainly through inhibition of eicosanoid (a kind of local hormone) production from arachidonic acid. Furthermore, research of the effects of DHA on learning ability and **behavior** has become popular these years. The fact that DHA is one of the major polyunsatd. fatty acids in the brain is associated to this trend. The authors recently found that DHA administration to volunteers prevented enhancement of aggressiveness and hostility at times of mental stress in a double-blind study. The incidence of heart attack and other diseases including cancer is higher in hostile people. Consequently, this effect of DHA on hostility may be regarded as one of the mechanisms of action in terms of disease prevention. Very recently new effects of n-3 fatty acids on psychol. disorders have been reported. In double-blind studies, EPA was effective in lowering pos. symptoms in schizophrenics; EPA plus DHA are effective in elongating symptom-free period in bipolar disorder. The area of n-3 fatty acids and **behavior**/psychol. disorders will be a hot topic in near future.

ST review n3 fatty acid **behavior** mental

IT **Behavior**

Mental disorder

(effects of N-3 fatty acids on **behavior** and psychol. disorders)

IT **Fatty acids, biological studies**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(polyunsatd., omega-3; effects of N-3 fatty acids on **behavior** and psychol. disorders)

L48 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:117352 HCAPLUS

DN 132:121845

ED Entered STN: 18 Feb 2000

TI DHA controls aggression

AU Hamazaki, Tomohito

CS Inst. Nat. Med., Toyama Med. Pharm. Univ., Japan

SO Kagaku to Seibutsu (2000), 38(2), 72-74

CODEN: KASEAA; ISSN: 0453-073X

PB Gakkai Shuppan Senta

DT Journal; General Review

LA Japanese

CC 18-0 (Animal Nutrition)

AB A review with 6 refs., on the suppression of aggression by dietary docosaheptaenoic acid (DHA). The possible involvement of n-3 fatty acids in the control of **behavioral** and mental status, and their effectiveness in the prevention of diseases (cardiac infarction, etc.) are discussed.

ST review diet docosaheptaenoate aggression

IT **Behavior**

(aggressive; suppression of aggression by dietary docosaheptaenoic acid)

IT **Fatty acids, biological studies**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(polyunsatd., omega-3; suppression of

aggression by dietary docosahexaenoic acid)

IT 6217-54-5, Docosahexaenoic acid
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process) (suppression of aggression by dietary docosahexaenoic acid)

L48 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:47020 HCAPLUS

DN 132:61088

ED Entered STN: 20 Jan 2000

TI Method for reducing the damaging effects of radiation therapy on animal skin and mucosa

IN Ogilvie, Gregory K.; Davenport, Deborah J.; Gross, Kathy L.; Hand, Michael S.

PA Colgate Palmolive Co., USA; Colorado State University Research Foundation

SO U.S., 6 pp., Cont.-in-part of U. S. 5,776,913.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K031-715

ICS A61K031-685; A61K031-20; A61K031-195

NCL 514057000

CC 8-9 (Radiation Biochemistry)

Section cross-reference(s): 17, 18

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6015798	A	20000118	US 1998-106295	19980629
	US 5776913	A	19980707	US 1995-544421	19951010
	CA 2234249	AA	19970417	CA 1996-2234249	19961004
	CA 2234249	C	20020326		
	ES 2170269	T3	20020801	ES 1996-934026	19961004
	ZA 9608482	A	19980408	ZA 1996-8482	19961008
	CA 2336628	AA	20000106	CA 1999-2336628	19990624
	WO 2000000189	A1	20000106	WO 1999-US14344	19990624
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9947167	A1	20000117	AU 1999-47167	19990624
	AU 761266	B2	20030529		
	EP 1091734	A1	20010418	EP 1999-930683	19990624
	EP 1091734	B1	20030917		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI, RO				
	TR 200100457	T2	20010821	TR 2001-200100457	19990624
	JP 2002519320	T2	20020702	JP 2000-556774	19990624
	NZ 508766	A	20030530	NZ 1999-508766	19990624
	AT 249821	E	20031015	AT 1999-930683	19990624
	ES 2207951	T3	20040601	ES 1999-930683	19990624
	ZA 2000007650	A	20020619	ZA 2000-7650	20001219
	NO 2000006575	A	20010228	NO 2000-6575	20001221
PRAI	US 1995-544421	A2	19951010		
	US 1998-106295	A	19980629		
	WO 1999-US14344	W	19990624		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

US 6015798 ICM A61K031-715
 ICS A61K031-685; A61K031-20; A61K031-195
 NCL 514057000

US 6015798 ECLA A23K001/16G1; A23K001/16I; A23K001/18N; A23K001/18N6
 US 5776913 ECLA A23K001/16G1; A23K001/16I; A23K001/18N; A23K001/18N6
 WO 2000000189 ECLA A23K001/18N

AB The severity of damage caused to the skin and mucosa of animals with cancer undergoing radiation therapy is mitigated by feeding the animal a nutritionally balanced food composition containing omega-6 polyunsatd. fatty acids

which are supplemented with a mixture of a omega-3 polyunsatd. fatty acids and arginine. **Dogs** with malignant neoplasia of the nasal cavity were treated with radiation and maintained on a diet containing either menhaden fish oil + arginine or soybean oil. **Dogs** on the fish oil diet had significantly higher serum levels of docosahexaenoic acid and eicosapentaenoic acid, reduced concns. of linoleic acid, and lower levels of oral mucosal and skin inflammatory mediators (prostaglandin E2 and 11-dehydrothromboxane B2) than **dogs** maintained on the control diet. **Dogs** maintained on the fish oil diet also showed decreased mucositis.

ST radiotherapy skin mucosa damage fatty acid; radioprotectant skin mucosa arginine fatty acid

IT Fats and Glyceridic oils, biological studies
 RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (fish; method for reducing damaging effects of radiotherapy on animal skin and mucosa)

IT Mucous membrane
 (inflammation; method for reducing damaging effects of radiotherapy on animal skin and mucosa)

IT Fats and Glyceridic oils, biological studies
 RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (menhaden; method for reducing damaging effects of radiotherapy on animal skin and mucosa)

IT **Cat (Felis catus)**
Dog (Canis familiaris)
 Feed
 Inflammation
 Mucous membrane
Pet animal
 Radioprotectants
 Radiotherapy
 Skin
 (method for reducing damaging effects of radiotherapy on animal skin and mucosa)

IT **Fatty acids, biological studies**
 RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polyunsatd., omega-3; method for reducing damaging effects of radiotherapy on animal skin and mucosa)

IT Fatty acids, biological studies
 RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polyunsatd., omega-6; method for reducing damaging effects of radiotherapy on animal skin and mucosa)

IT 60-33-3, Linoleic acid, biological studies 363-24-6, Prostaglandin E2
 6217-54-5, Docosahexaenoic acid 10417-94-4, Eicosapentaenoic acid
 67910-12-7, 11-Dehydrothromboxane B2
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (method for reducing damaging effects of radiotherapy on animal skin

and mucosa)
 IT 74-79-3, L-Arginine, biological studies 7200-25-1, Arginine
 RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
 study); USES (Uses)
 (method for reducing damaging effects of radiotherapy on animal skin
 and mucosa)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Ogilvie; US 5776913 1998 HCAPLUS

L48 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:14997 HCAPLUS

DN 132:47018

ED Entered STN: 07 Jan 2000

TI Method for reducing the damaging effects of radiation therapy on animal
 skin and mucosa

IN Davenport, Deborah J.; Gross, Kathy L.; Ogilvie, Gregory K.; Hand, Michael
 S.

PA Colgate-Palmolive Company, USA; Colorado State University
 Research Foundation

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K031-195

ICS A61K031-20; A61K031-23; A23K001-18

CC 8-9 (Radiation Biochemistry)

Section cross-reference(s): 17

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000000189	A1	20000106	WO 1999-US14344	19990624
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6015798	A	20000118	US 1998-106295	19980629
	CA 2336628	AA	20000106	CA 1999-2336628	19990624
	AU 9947167	A1	20000117	AU 1999-47167	19990624
	AU 761266	B2	20030529		
	EP 1091734	A1	20010418	EP 1999-930683	19990624
	EP 1091734	B1	20030917		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI, RO				
	JP 2002519320	T2	20020702	JP 2000-556774	19990624
	NZ 508766	A	20030530	NZ 1999-508766	19990624
	AT 249821	E	20031015	AT 1999-930683	19990624
	NO 2000006575	A	20010228	NO 2000-6575	20001221
PRAI	US 1998-106295	A	19980629		
	US 1995-544421	A2	19951010		
	WO 1999-US14344	W	19990624		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000000189	ICM	A61K031-195
	ICS	A61K031-20; A61K031-23; A23K001-18
WO 2000000189	ECLA	A23K001/18N
US 6015798	ECLA	A23K001/16G1; A23K001/16I; A23K001/18N; A23K001/18N6
AB		The severity of damage caused to the skin and mucosa of animals with

cancer undergoing radiation therapy is mitigated by feeding the animal a nutritionally balanced food composition containing omega-6 polyunsatd. fatty acids

which are supplemented with a mixture of an omega-3 polyunsatd. fatty acid and arginine. The nutritionally balanced food has a fat content of about 27-35% dry weight, carbohydrate content of about 15-27% dry weight, and a weight

ratio of omega-3 to omega-6 polyunsatd. fatty acids in the range of 0.3:1 to 3.5:1.

ST **pet** animal radiotherapy skin mucosa protection; fatty acid arginine radioprotectant feed animal

IT Fats and Glyceridic oils, biological studies

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(fish; method for reducing damaging effects of radiation therapy on animal skin and mucosa)

IT Fats and Glyceridic oils, biological studies

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(menhaden; method for reducing damaging effects of radiation therapy on animal skin and mucosa)

IT **Cat (Felis catus)**

Dog (Canis familiaris)

Feed

Mucous membrane

Pet animal

Radioprotectants

Radiotherapy

Skin

(method for reducing damaging effects of radiation therapy on animal skin and mucosa)

IT Carbohydrates, biological studies

Fats and Glyceridic oils, biological studies

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(method for reducing damaging effects of radiation therapy on animal skin and mucosa)

IT **Fatty acids, biological studies**

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(polyunsatd., omega-3; method for reducing damaging effects of radiation therapy on animal skin and mucosa)

IT Fatty acids, biological studies

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(polyunsatd., omega-6; method for reducing damaging effects of radiation therapy on animal skin and mucosa)

IT 74-79-3, Arginine, biological studies 7200-25-1, Arginine

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(method for reducing damaging effects of radiation therapy on animal skin and mucosa)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Brigham & Womens Hospital; WO 8701589 A 1987 HCAPLUS

(2) Codner, E; Compendium on Continuing Education for the Practicing Veterinarian 1993, V15(3), P411

(3) IAMS Company; EP 0678247 A 1995 HCAPLUS

(4) Iben, C; Wiener Tierarztliche Monatschrift 1997, V84(12), P369

(5) Ogilvie, G; WO 9713415 A 1997 HCAPLUS

(6) Sandoz AG; EP 0367724 A 1990 HCAPLUS

(7) Sandoz Nutrition Ltd; EP 0567433 A 1993 HCAPLUS

L48 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1999:222178 HCAPLUS
 DN 131:44176
 ED Entered STN: 09 Apr 1999
 TI Effect of dietary n-6-to-n-3 fatty acid ratio on complete blood and total white blood cell counts, and T-cell subpopulations in aged **dogs**
 AU Hall, Jean A.; Wander, Rosemary C.; Gradin, Joseph L.; Du, Shi-Hua; **Jewell, Dennis E.**
 CS College of Veterinary Medicine, Oregon State University, Corvallis, OR, 97331, USA
 SO American Journal of Veterinary Research (1999), 60(3), 319-327
 CODEN: AJVRAH; ISSN: 0002-9645
 PB American Veterinary Medical Association
 DT Journal
 LA English
 CC 18-5 (Animal Nutrition)
 AB The effects of diets with variable n-6/n-3 fatty acid (FA) ratio on CD4+ and CD8+ T-lymphocyte subpopulations and on routine hematol. anal. results (blood cell and leukocyte counts, serum biochem., urinalysis) were studied for 11 wk in 20 healthy, aged (9.5-11.5 yr) female Beagle **dogs**. The **dogs** were fed 1 of 3 diets that contained 6% fat but differed in the n-6/n-3 FA ratio. Six **dogs** were fed a low n-3 FA diet (ratio 31:1), 7 **dogs** were fed a medium n-3 diet (5.4:1), and 7 **dogs** were fed a high n-3 diet (1.4:1). Preprandial blood and urine samples were collected before the study and at 8 wk for the evaluation of laboratory variables. Before and at 3, 6, and 8 wk of the study, blood was drawn for total leukocyte and lymphocyte counts and for characterization of T-cell subpopulations. At 8 and 10 wk the **dogs** were vaccinated with keyhole limpet hemocyanin suspension. Blood was drawn 4 days after each vaccination and lymphocytes were isolated for flow cytometry. The effects of diet and vaccination on each variable were determined. After vaccination the total lymphocyte counts increased and CD4+ T-lymphocyte counts and the CD4+/CD8+ ratio decreased in **dogs** fed the diet with n-6/n-3 FA ratio of 1.4:1. Thus, diet with n-6/n-3 FA ratio of 1.4:1 affected the CD4+ T-lymphocyte counts in healthy aged Beagle **dogs** after vaccination.
 ST **dog** aging nutrition fatty acid blood lymphocyte index
 IT Aging, animal
 Blood
 Dog (*Canis familiaris*)
 Feeding experiment
 Leukocyte
 Nutrition, animal
 T cell (lymphocyte)
 (dietary fatty acid n-6/n-3 ratio effects on blood biochem. indexes and leukocyte counts in aged **dogs**)
 IT **Fatty acids, biological studies**
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (polyunsatd., omega-3; dietary fatty acid
 n-6/n-3 ratio effects on blood biochem. indexes and
 leukocyte counts in aged **dogs**)
 IT **Fatty acids, biological studies**
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (polyunsatd., omega-6; dietary fatty acid n-6/n-3
 ratio effects on blood biochem. indexes and leukocyte counts in aged **dogs**)
 RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Anon; Current protocols in immunology 1992
 (2) Calder, P; Ann Nutr Metab 1997, V41, P203 HCAPLUS
 (3) Calder, P; Clin Sci 1992, V82, P695 HCAPLUS
 (4) Calder, P; Immunology 1992, V75, P108 HCAPLUS

- (5) Calder, P; Proc Nutr Soc 1996, V55, P737 HCAPLUS
 - (6) Chandra, R; Nutr Rev 1995, V53, PS80 MEDLINE
 - (7) Cochran, W; Experimental designs 2nd ed 1957
 - (8) Endres, S; N Engl J Med 1989, V320, P265 HCAPLUS
 - (9) Endres, S; World Rev Nutr Diet 1991, V66, P401 HCAPLUS
 - (10) Fujikawa, M; Immunology 1992, V75, P330 HCAPLUS
 - (11) Gebhard, D; Vet Immunol Immunopathol 1992, V33, P187 MEDLINE
 - (12) Goodnight, S; Blood 1981, V58, P880 HCAPLUS
 - (13) Goodwin, J; Clin Exp Immunol 1982, V48, P403 MEDLINE
 - (14) Hagmar, L; Toxicol Lett 1995, V77, P335 HCAPLUS
 - (15) Hall, J; Compend Contin Educ Pract Vet 1996, V18(8), P879
 - (16) Helfand, S; Vet Immunol Immunopathol 1992, V33, P1 HCAPLUS
 - (17) Hughes, D; Am J Clin Nutr 1996, V63, P267 HCAPLUS
 - (18) Jeffery, N; Prostaglandins Leukot Essent Fatty Acid 1997, V57, P149 HCAPLUS
 - (19) Kelley, D; Lipids 1997, V32, P449 HCAPLUS
 - (20) Meydani, S; J Clin Invest 1993, V92, P105 HCAPLUS
 - (21) Meydani, S; J Nutr 1991, V121, P547 HCAPLUS
 - (22) Mosier, J; Vet Clin North Am Small Anim Pract 1989, V19, P1 MEDLINE
 - (23) National Research Council; Guide for the care and use of laboratory animals. (rev) 1985, 85-23
 - (24) Roberts-Thompson, I; Lancet 1974, V2, P368
 - (25) Sanderson, P; Cell Immunol 1995, V164, P240 HCAPLUS
 - (26) Sanderson, P; J Nutr Environ Med 1995, V5, P119 HCAPLUS
 - (27) Schmidt, E; Arterioscler Thromb Vasc Biol 1991, V11, P429 HCAPLUS
 - (28) Smith, K; Science 1988, V240, P1169 HCAPLUS
 - (29) Snedecor, G; Statistical methods 8th ed 1989
 - (30) Somberg, R; Vet Immunol Immunopathol 1992, V33, P17 HCAPLUS
 - (31) Song, J; J Nutr 1991, V121, P284 HCAPLUS
 - (32) Stacpoole, P; Metabolism 1989, V38, P946 HCAPLUS
 - (33) Strasser, A; J Am Vet Med Assoc 1993, V40, P720 MEDLINE
 - (34) Vaughn, D; Vet Dermatol 1994, V5, P163
 - (35) Virella, G; Clin Immunol Immunopathol 1989, V52, P257 MEDLINE
 - (36) Virella, G; Clin Immunol Immunopathol 1991, V61, P161 HCAPLUS
 - (37) Wander, R; J Nutr 1997, V27, P1198
 - (38) Woodard, L; Lab Anim Sci 1989, V39, P222 HCAPLUS
 - (39) Wu, D; Am J Clin Nutr 1996, V63, P273 HCAPLUS
 - (40) Yaqoob, P; Immunology 1994, V82, P603 HCAPLUS
 - (41) Yaqoob, P; Nutr Res 1995, V15, P279 HCAPLUS
- L48 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1997:357440 HCAPLUS
- DN 127:94648
- ED Entered STN: 07 Jun 1997
- TI The ratio of dietary (n-6) to (n-3) fatty acids influences immune system function, eicosanoid metabolism, lipid peroxidation and vitamin E status in aged **dogs**
- AU Wander, Rosemary C.; Hall, Jean A.; Gradin, Joseph L.; Su, Shi-Hua; **Jewell, Dennis E.**
- CS Dep. Nutrition Food Management, Oregon State Univ., Corvallis, OR, 97331-4802, USA
- SO Journal of Nutrition (1997), 127(6), 1198-1205
CODEN: JONUAI; ISSN: 0022-3166
- PB American Society for Nutritional Sciences
- DT Journal
- LA English
- CC 18-5 (Animal Nutrition)
Section cross-reference(s): 13, 15
- AB We studied the effects of feeding exptl. diets containing (n-6) to (n-3) fatty acid ratios of 31:1, 5.4:1, and 1.4:1 to 20 healthy old female Beagle **dogs** (9.5-11.5 yr) for 8-12 wk on various indexes of the immune response. Compared with the 31:1 diet, consumption of the 5.4:1 and 1.4:1 diets significantly increased the (n-3) fatty acids in plasma (2.17 ±

0.64, 9.05 ± 0.64 , 17.46 ± 0.64 g/100 g fatty acids, resp., $P < 0.0001$). Although supplementation with (n-3) fatty acids did not significantly alter the humoral immune response to keyhole limpet hemocyanin (KLH), it significantly suppressed the cell-mediated immune response based on results of a delayed-type hypersensitivity (DTH) skin test. The DTH response after intradermal injection of KLH at 24 h was significantly lower in the group consuming the 1.4:1 diet compared with the group consuming the 5.4:1 ($P = 0.02$) or the 31:1 diets ($P = 0.04$), and remained significantly suppressed at 48 h in the group fed 1.4:1 relative to the group fed 31:1 diets. After consumption of the 1.4:1 diet, stimulated mononuclear cells produced 52% less prostaglandin E₂ (PGE₂) than cells from **dogs** fed the 31:1 diet (224 ± 74 and 451 ± 74 pmol/L, resp., $P = 0.04$). Blood plasma concentration of α -tocopherol was 20% lower in **dogs** fed the 1.4:1 diet compared with **dogs** fed the 31:1 diet ($P = 0.04$), and lipid peroxidn. parameters were greater in both plasma ($P = 0.03$) and urine ($P = 0.002$). These data suggest that although a ratio of dietary (n-6) to (n-3) fatty acids of 1.4:1 depresses the cell-mediated immune response in PGE₂ production, it increases lipid peroxidn. and lowers vitamin E concns.

ST feed fatty acid immunity prostaglandin tocopherol

IT Immunity

(cell-mediated; dietary (n-6) to (n-3) fatty acids influences on immunity, eicosanoid metabolism, lipid peroxidn. and vitamin E status in aged **dogs**)

IT Aging, animal

Blood plasma

Diet

Mononuclear cell (leukocyte)

Nutrition, animal

Urine

(dietary (n-6) to (n-3) fatty acids influences on immunity, eicosanoid metabolism, lipid peroxidn. and vitamin E status in aged **dogs**)

IT Glycerides, biological studies

RL: BOC (Biological occurrence); BSU (Biological study, unclassified);

BIOL (Biological study); OCCU (Occurrence)

(dietary (n-6) to (n-3) fatty acids influences on immunity, eicosanoid metabolism, lipid peroxidn. and vitamin E status in aged **dogs**)

IT Immunity

(humoral; dietary (n-6) to (n-3) fatty acids influences on immunity, eicosanoid metabolism, lipid peroxidn. and vitamin E status in aged **dogs**)

IT Peroxidation

(lipid; dietary (n-6) to (n-3) fatty acids influences on immunity, eicosanoid metabolism, lipid peroxidn. and vitamin E status in aged **dogs**)

IT Lipids, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(peroxidn.; dietary (n-6) to (n-3) fatty acids influences on immunity, eicosanoid metabolism, lipid peroxidn. and vitamin E status in aged **dogs**)

IT Fatty acids, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(polyunsatd., n-3; dietary (n-6) to (n-3) fatty acids influences on immunity, eicosanoid metabolism, lipid peroxidn. and vitamin E status in aged **dogs**)

IT Fatty acids, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(polyunsatd., omega-6; dietary (n-6) to (n-3) fatty acids influences on immunity, eicosanoid metabolism, lipid peroxidn. and vitamin E status in aged **dogs**)

- IT 59-02-9, α -Tocopherol
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(dietary (n-6) to (n-3) fatty acids influences on immunity, eicosanoid metabolism, lipid peroxidn. and vitamin E status in aged **dogs**)
- IT 57-88-5, Cholesterol, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(dietary (n-6) to (n-3) fatty acids influences on immunity, eicosanoid metabolism, lipid peroxidn. and vitamin E status in aged **dogs**)
- IT 363-24-6, Pge2
RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(dietary (n-6) to (n-3) fatty acids influences on immunity, eicosanoid metabolism, lipid peroxidn. and vitamin E status in aged **dogs**)

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Alexander, D; J Nutr 1995, V125, P2640 HCAPLUS
- (2) Bottje, W; Biochem Pharmacol 1993, V46, P1019 HCAPLUS
- (3) Cochran, W; Experimental Designs, 2nd ed 1957
- (4) Coligan, J; Current Protocols in Immunology 1992
- (5) Exon, J; Int J Immunopharmacol 1990, V12, P699 MEDLINE
- (6) Harman, D; Free Radicals in Biology 1982, V5, P255 HCAPLUS
- (7) Harris, W; Lipids 1996, V31, P243 HCAPLUS
- (8) Hayek, M; FASEB J 1994, V8, PA411
- (9) Huang, S; J Nutr 1992, V122, P1219 HCAPLUS
- (10) Jaroslow, B; J Immunol 1974, V112, P1467 MEDLINE
- (11) Kay, M; Mech Aging Dev 1978, V9, P39
- (12) Krakowka, S; Immunopathol 1987, V15, P181 HCAPLUS
- (13) Kremer, J; Ann Intern Med 1987, V106, P497 MEDLINE
- (14) Kromhout, D; N Engl J Med 1985, V312, P1205 MEDLINE
- (15) Meydani, M; J Nutr 1991, V121, P484 HCAPLUS
- (16) Meydani, S; Am J Clin Nutr 1990, V52, P557 HCAPLUS
- (17) Meydani, S; J Clin Invest 1993, V92, P105 HCAPLUS
- (18) Meydani, S; J Nutr 1991, V121, P547 HCAPLUS
- (19) Meydani, S; Mech Aging Dev 1986, V34, P191 HCAPLUS
- (20) Meydani, S; Nutr Clin Pract 1993, V8, P65 MEDLINE
- (21) Meydani, S; Nutr Rev 1995, V53, PS52 MEDLINE
- (22) Muggli, R; Health Effects of Fish and Fish Oils 1989, P201
- (23) National Research Council; Guide for the Care and Use of Laboratory Animals Publication No 85-23 (rev) 1985
- (24) Neuringer, M; Annu Rev Nutr 1988, V8, P517 HCAPLUS
- (25) Pillai, S; Lipids 1993, V28, P1095 HCAPLUS
- (26) Shapiro, A; Prostaglandins 1993, V45, P229 HCAPLUS
- (27) Song, J; J Nutr 1991, V121, P284 HCAPLUS
- (28) Stenson, W; Ann Intern Med 1992, V116, P609 HCAPLUS
- (29) Suzuki, H; Biochim Biophys Acta 1985, V836, P390 HCAPLUS
- (30) Thurnham, D; Ann Clin Biochem 1986, V23, P514 HCAPLUS
- (31) Virella, G; Clin Immunol Immunopathol 1989, V52, P257 MEDLINE
- (32) Wander, R; Am J Clin Nutr 1996, V63, P184 HCAPLUS
- (33) Wander, R; J Nutr 1996, V126, P643 HCAPLUS
- (34) Warso, M; Br Med Bull 1983, V39, P277 HCAPLUS
- (35) Woodard, L; Lab Anim Sci 1989, V39, P222 HCAPLUS
- (36) Wu, D; Am J Clin Nutr 1996, V63, P273 HCAPLUS
- (37) Yoshino, S; Int Arch Allergy Appl Immunol 1987, V84, P233 HCAPLUS
- (38) Zoschke, D; Clin Immunol Immunopathol 1984, V32, P29 MEDLINE

L48 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:351127 HCAPLUS
DN 126:316847
ED Entered STN: 05 Jun 1997

TI Therapeutic diet for **dogs** with lymphoma
 IN Ogilvie, Gregory K.; Davenport, Deborah J.; Gross, Kathy L.; Hand, Michael S.
 PA Colgate-Palmolive Company, USA; Ogilvie, Gregory K.
 SO PCT Int. Appl., 25 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A23K001-16
 ICS A23K001-18; A61K031-195; A61K031-20; A61K031-23
 CC 17-12 (Food and Feed Chemistry)
 Section cross-reference(s): 14, 18
 FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9713415	A1	19970417	WO 1996-US15865	19961004
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI			
US 5776913	A	19980707	US 1995-544421	19951010
CA 2234249	AA	19970417	CA 1996-2234249	19961004
CA 2234249	C	20020326		
AU 9672545	A1	19970430	AU 1996-72545	19961004
AU 707341	B2	19990708		
EP 854681	A1	19980729	EP 1996-934026	19961004
EP 854681	B1	20011219		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI			
JP 11513561	T2	19991124	JP 1996-515099	19961004
BR 9611044	A	19991228	BR 1996-11044	19961004
AT 210928	E	20020115	AT 1996-934026	19961004
ES 2170269	T3	20020801	ES 1996-934026	19961004
ZA 9608482	A	19980408	ZA 1996-8482	19961008
NO 9801593	A	19980609	NO 1998-1593	19980407
PRAI US 1995-544421	A	19951010		
WO 1996-US15865	W	19961004		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9713415	ICM	A23K001-16
	ICS	A23K001-18; A61K031-195; A61K031-20; A61K031-23
WO 9713415	ECLA	A23K001/16G1; A23K001/16I; A23K001/18N; A23K001/18N6
US 5776913	ECLA	A23K001/16G1; A23K001/16I; A23K001/18N; A23K001/18N6
AB		The severity of metabolic disturbance in animals with cancer is mitigated by feeding the animal a nutritionally balanced food composition having a fat content of about 27 to 35%, on a dry matter basis, a carbohydrate content of about 15 to about 27% on a dry matter basis in which is present a mixture of arginine, omega-3 polyunsatd. fatty acids and omega-6 polyunsatd. fatty acids, the weight ratio of omega-3, omega-6 fatty acid being in the range of 0.3:1 to 3.5:1.
ST		dog feed therapeutic diet lymphoma cancer
IT		Lung Meat RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (beef; therapeutic diet for dogs with lymphoma)
IT		Meat RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (chicken; therapeutic diet for dogs with lymphoma)

- IT Proteins, general, biological studies
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dietary; therapeutic diet for **dogs** with lymphoma)
- IT Fats and Glyceridic oils, biological studies
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(menhaden; therapeutic diet for **dogs** with lymphoma)
- IT **Fatty acids, biological studies**
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyunsatd., n-3; therapeutic diet for **dogs** with lymphoma)
- IT Fatty acids, biological studies
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyunsatd., omega-6; therapeutic diet for **dogs** with lymphoma)
- IT Meat
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pork, liver; therapeutic diet for **dogs** with lymphoma)
- IT Dietary fiber
Dog (Canis familiaris)
Feed
Lymphoma
Neoplasm
Nutrition, animal
(therapeutic diet for **dogs** with lymphoma)
- IT Carbohydrates, biological studies
Fats and Glyceridic oils, biological studies
Mineral elements, biological studies
Rice (Oryza sativa)
Vitamins
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(therapeutic diet for **dogs** with lymphoma)
- IT Diet
(therapeutic; therapeutic diet for **dogs** with lymphoma)
- IT 56-87-1, L-Lysine, biological studies 57-10-3, Hexadecanoic acid, biological studies 57-11-4, Octadecanoic acid, biological studies 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8, Vitamin B1, biological studies 59-67-6, Niacin, biological studies 60-18-4, L-Tyrosine, biological studies 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies 61-90-5, L-Leucine, biological studies 62-49-7, Choline 63-68-3, L-Methionine, biological studies 67-48-1, Choline chloride 68-19-9, Vitamin B12 71-00-1, L-Histidine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, Tryptophan, biological studies 73-32-5, L-Isoleucine, biological studies 74-79-3, Arginine, biological studies 79-83-4, Pantothenic acid 83-88-5, Vitamin B2, biological studies 107-35-7, Taurine 112-80-1, Oleic acid, biological studies 373-49-9, Palmitoleic acid 463-40-1, Linolenic acid 471-34-1, Calcium carbonate, biological studies 506-32-1, Arachidonic acid 866-84-2, Potassium citrate 1309-37-1, Red iron oxide, biological studies 1406-18-4, Vitamin E 7439-89-6, Iron, biological studies 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7440-09-7, Potassium, biological studies 7440-23-5, Sodium, biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 7440-70-2, Calcium, biological studies 7553-56-2, Iodine, biological studies 7723-14-0, Phosphorus, biological studies 7782-49-2, Selenium, biological studies 8059-24-3, Vitamin B6 9004-34-6, Cellulose, biological studies 11103-57-4, Vitamin A 16887-00-6, Chloride, biological studies 28933-89-3

32839-18-2 32839-30-8 32839-34-2 81275-46-9

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(therapeutic diet for **dogs** with lymphoma)

L48 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1997:229241 HCAPLUS
 DN 126:263467
 ED Entered STN: 09 Apr 1997
 TI Omega-3 fatty acid deficiency and **behavior**: a critical review
 and directions for future research
 AU Reisbick, Sydney; Neuringer, Martha
 CS Oregon Regional Primate Research Center, Beaverton, OR, USA
 SO Handbook of Essential Fatty Acid Biology (1997), 397-426. Editor(s):
 Yehuda, Shlomo; Mostofsky, David I. Publisher: Humana, Totowa, N. J.
 CODEN: 64ESA8
 DT Conference; General Review
 LA English
 CC 18-0 (**Animal Nutrition**)
 AB A review with >140 refs. on the role of n3 fatty acid nutrition on
 development and **behavior**.
 ST review n3 fatty acid development **behavior**
 IT **Behavior**
 Development, mammalian postnatal
 (omega-3 fatty acid deficiency and **behavior**)
 IT **Fatty acids, biological studies**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); BIOL (Biological study)
 (polyunsatd., n-3; omega-
 3 fatty acid deficiency and **behavior**)

L48 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1994:243195 HCAPLUS
 DN 120:243195
 ED Entered STN: 14 May 1994
 TI Home cage **behavior** of rhesus **monkeys** with long-term
 deficiency of omega-3 fatty acids
 AU Reisbick, S.; Neuringer, M.; Hasnain, R.; Connor, W. E.
 CS Dep. Med., Oregon Health Sci. Univ., Portland, OR, 97201, USA
 SO Physiology & Behavior (1994), 55(2), 231-9
 CODEN: PHBHA4; ISSN: 0031-9384
 DT Journal
 LA English
 CC 18-5 (**Animal Nutrition**)
 AB In an observational study with a blind observer, rhesus **monkeys**
 deficient in omega-3 (ω-3 or n-3) fatty acids initiated more bouts
 of stereotyped **behavior** in their home cages than **monkeys**
 fed a matched control diet abundant in omega-3 fatty acids. Locomotion
 bouts were also more frequent in deficient **monkeys**, but
 nonstereotyped locomotion did not differ. Both stereotyped
behavior and the sum of all **behavioral** bouts were more
 frequent in 4-5-yr-old than in 2-3-old **monkeys**, and stereotyped
 decreased after meals in males but not in females. The stereotyped
behaviors associated with a deficit in omega-3 fatty acids were those
 typical of rhesus **monkeys** raised as partial social isolates or
 those whose surroundings have been disrupted.
 ST n3 fatty acid diet **behavior monkey**
 IT Sex
 (long-term n-3 fatty acid deficiency effect on **behavioral**
 differences between, in rhesus **monkeys**)
 IT **Behavior**
 (dominant, long-term n-3 fatty acid deficiency effect on, in
 rhesus **monkeys**)

- IT **Behavior**
(**feeding**, long-term n-3 fatty acid deficiency effect on, in rhesus **monkeys**)
- IT **Behavior**
(**lethargic**, long-term n-3 fatty acid deficiency effect on, in rhesus **monkeys**)
- IT **Behavior**
(**locomotor**, long-term n-3 fatty acid deficiency effect on, in rhesus **monkeys**)
- IT **Fatty acids, biological studies**
RL: BIOL (Biological study)
(**polyunsatd.**, n-3, long-term deficiency of, rhesus **monkey behavior** response to)
- IT **Behavior**
(**self-administration**, long-term n-3 fatty acid deficiency effect on, in rhesus **monkeys**)
- IT **Behavior**
(**social**, long-term n-3 fatty acid deficiency effect on, in rhesus **monkeys**)
- L48 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:530280 HCAPLUS
DN 117:130280
ED Entered STN: 04 Oct 1992
TI Do essential fatty acids play a role in brain and **behavioral** development?
AU Wainwright, Patricia E.
CS Dep. Health Stud., Univ. Waterloo, Waterloo, ON, N2L 3G1, Can.
SO Neuroscience & Biobehavioral Reviews (1992), 16(2), 193-205
CODEN: NBREDE; ISSN: 0149-7634
DT Journal; General Review
LA English
CC 18-0 (**Animal Nutrition**)
AB A review, with 165 refs. The rapid accumulation of the long-chain n-3 PUFA in the brain during prenatal and preweaning development suggests that the provision of n-3 fatty acids to the developing brain may be necessary for normal growth and functional development. The exptl. work which addresses this question, most of which has been conducted on rodents, is assessed. The emphasis will be on studies which measure **behavioral** outcomes, and particular attention will be paid to methodol. issues which affect the interpretation of these data. An integration of the research findings will be presented and discussed in light of possible implications for therapeutic interventions.
ST review essential fatty acid brain development; **behavior** development fatty acid nutrition review
IT Development, mammalian
(**behavior** and brain in, essential fatty acids role in)
IT **Behavior**
Brain
(development of, essential fatty acids in)
IT Fatty acids, biological studies
RL: BIOL (Biological study)
(essential, in **behavioral** and brain development)
- IT **Fatty acids, biological studies**
RL: BIOL (Biological study)
(**polyunsatd.**, n-3, in **behavioral** and brain development)
- L48 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:157123 HCAPLUS
DN 112:157123
ED Entered STN: 28 Apr 1990
TI Polydipsia in rhesus **monkeys** deficient in omega-3 fatty acids

AU Reisbick, Sydney; Neuringer, Martha; Hasnain, Romana; Connor, William E.
 CS Dep. Med., Oregon Health Sci. Univ., Portland, OR, 97201, USA
 SO Physiology & Behavior (1990), 47(2), 315-23
 CODEN: PHBHA4; ISSN: 0031-9384
 DT Journal
 LA English
 CC 18-5 (Animal Nutrition)
 AB Omega-3 fatty acids are a major component of neural membranes. They are essential nutrients for normal biochem. development of the brain and retina and may affect **behavior**. In studies of long-term dietary omega-3 fatty acid deficiency, a new effect of this deficiency was found in rhesus **monkeys**. Deficient **monkeys** visited the home cage drinking spout more frequently than controls, and drank more water over 24 h. The increase in intake was mirrored by increased combined output of urine + feces over 24 h, and was not due to spillage. The dietary deficiency greatly reduced omega-3 fatty acids in red blood cells but did not affect serum electrolyte levels. The changes in fluid intake and output may be related to direct or indirect effects on central or peripheral control mechanisms for drinking or excretion, which may be mediated by altered composition of neural or other membranes or changes in eicosanoid metabolism
 ST omega3 fatty acid deficiency polydipsia
 IT Diuresis
 Water drinking
 (omega-3 fatty acid deficiency effect on)
 IT Erythrocyte
 (omega-3 fatty acids of, omega-3 fatty acid deficiency effect on, polydipsia in relation to)
 IT Thirst
 (disorder, polydipsia, omega-3 fatty acid deficiency effect on)
 IT **Fatty acids, biological studies**
 RL: BIOL (Biological study)
 (**polyunsatd.**, n-3, deficiency of, polydipsia from)
 IT 7732-18-5
 RL: BIOL (Biological study)
 (water drinking, omega-3 fatty acid deficiency effect on)

=> => fil medline

FILE 'MEDLINE' ENTERED AT 16:43:26 ON 15 DEC 2004

FILE LAST UPDATED: 9 DEC 2004 (20041209/UP). FILE COVERS 1950 TO DATE.

On February 29, 2004, the 2004 MeSH terms were loaded. See HELP RLOAD for details.

OLDMEDLINE now back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2004 vocabulary. See <http://www.nlm.nih.gov/mesh/> and http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html for a description of changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all 160

L60 ANSWER 1 OF 1 MEDLINE on STN
 AN 90007164 MEDLINE
 DN PubMed ID: 2551801

TI General pharmacological studies on 5,8,11,14,17-eicosapentaenoic acid ethyl ester (EPA-E).

AU Sato M; Imada K; Iida S; Ohashi K; Yamaguchi K; Kosuzume H; Shibutani Y; Kunihiro Y

CS Fuji Central Research Laboratory, Mochida Pharmaceutical Co., Ltd., Shizuoka, Japan.

SO Nippon yakurigaku zasshi. Japanese journal of pharmacology, (1989 Jul) 94 (1) 35-47.
Journal code: 0420550. ISSN: 0015-5691.

CY Japan

DT Journal; Article; (JOURNAL ARTICLE)

LA Japanese

FS Priority Journals

EM 198911

ED Entered STN: 19900328
Last Updated on STN: 19900328
Entered Medline: 19891107

AB EPA-E, even at 3,000 mg/kg, p.o., did not affect the general **behaviors**, spontaneous locomotor activities, pentobarbital hypnosis and body temperature; and it did not elicit anticonvulsant, analgesic and muscle relaxant actions. It had no influence on spontaneous EEG activities, even at 3,000 mg/kg, i.d. EPA-E at concentrations up to 10(-4) M, did not affect the tonus or agonist-induced contraction of the isolated ileum, trachea, fundus and vas deferens. EPA-E had no influence on the spontaneous movement of isolated ileum or uterus. EPA-E did not affect the nictitating membrane contraction and intestinal propulsive motility, and it did not damage gastric mucosa nor elicit antiulcer action. EPA-E at 1,000 mg/kg were without effect on gastric secretory volume (SV), total acidity (TA) and pepsin activities (PA). However, EPA-E at 3,000 mg/kg significantly decreased SV and TA without significantly decreasing PA. EPA-E caused no changes in the respiration, blood pressure, heart rate and ECG at the doses up to 3,000 mg/kg; and it did not affect the heart rate and contractile force on the isolated atria at concentrations up to 10(-4) M. The intracutaneous injection of 2.0% EPA-E produced neither anesthetic nor irritative action. EPA-E did not elicit hemolytic action at 10(-4) M. EPA-E, even at 3,000 mg/kg, did not affect the neuro-muscular transmission, urine volume, urinary excretion of electrolytes and carrageenin edema. These results suggested that EPA-E has no noticeable effects on the central nervous, autonomic nervous, respiratory and cardiovascular systems and so on.

CT Animals

- *Behavior, Animal: DE, drug effects
- Cats
- *Central Nervous System: DE, drug effects
- *Eicosapentaenoic Acid: PD, pharmacology
- English Abstract
- Gastrointestinal Motility: DE, drug effects
- Guinea Pigs
- *Hemodynamic Processes: DE, drug effects
- Mice
- *Muscle Contraction: DE, drug effects
- Muscle, Smooth: DE, drug effects
- Rabbits
- Rats
- *Respiration: DE, drug effects

RN 1553-41-9 (Eicosapentaenoic Acid)

=> => fil biosis

FILE 'BIOSIS' ENTERED AT 16:47:40 ON 15 DEC 2004
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FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNS) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 9 December 2004 (20041209/ED)

FILE RELOADED: 19 October 2003.

=> d all

L68 ANSWER 1 OF 1 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 1997:322770 BIOSIS
DN PREV199799621973
TI **Omega-3 fatty acid deficiency and
behavior:** A critical review and directions for future research.
AU Reisbick, Sydney [Reprint author]; Neuringer, Martha
CS Oreg. Regional Primate Res. Cent., Beaverton, OR, USA
SO Yehuda, S. [Editor]; Mostofsky, D. I. [Editor]. (1997) pp. 397-426.
Handbook of essential fatty acid biology: Biochemistry, physiology, and
behavioral neurobiology.
Publisher: Humana Press Inc., Suite 808, 999 Riverview Drive, Totowa, New
Jersey 07512, USA.
ISBN: 0-89603-365-1.
DT Book; (Book Chapter)
General Review; (Literature Review)
LA English
ED Entered STN: 5 Aug 1997
Last Updated on STN: 5 Aug 1997
CC **Behavioral biology - Animal behavior 07003**
Behavioral biology - Human behavior 07004
Biophysics - Membrane phenomena 10508
Physiology - Comparative 12003
Metabolism - Lipids 13006
Nutrition - Lipids 13222
Endocrine - Neuroendocrinology 17020
Nervous system - Physiology and biochemistry 20504
Psychiatry - General, medical psychology and sociology 21001
IT Major Concepts
Behavior; Endocrine System (Chemical Coordination and
Homeostasis); Membranes (Cell Biology); Metabolism; Nervous System
(Neural Coordination); Nutrition; Physiology
IT Chemicals & Biochemicals
LINOLEIC ACID; DOCOSAHEXAENOIC ACID; DOPAMINE
IT Miscellaneous Descriptors
BEHAVIOR; BIOCHEMISTRY AND BIOPHYSICS; DOCOSAHEXAENOIC ACID;
DOPAMINE HYPOTHESIS; ESSENTIAL FATTY ACIDS;
LEARNING; LINOLEIC ACID; MEMBRANE FUNCTION; NEURAL COORDINATION;
NUTRITION; NUTRITIONAL DISEASE; **OMEGA-3**
FATTY ACID DEFICIENCY; **OMEGA-3**
FATTY ACIDS; PROSTAGLANDINS
ORGN Classifier
Felidae 85770
Super Taxa
Carnivora; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
cat
Taxa Notes
Animals, Carnivores, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman
Mammals, Vertebrates
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name

human
 Taxa Notes
 Animals, Chordates, Humans, Mammals, Primates, Vertebrates
 ORGN Classifier
 Muridae 86375
 Super Taxa
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia
 Organism Name
 mouse
 rat
 Taxa Notes
 Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals,
 Rodents, Vertebrates
 ORGN Classifier
 Primates 86190
 Super Taxa
 Mammalia; Vertebrata; Chordata; Animalia
 Organism Name
 monkey
 Primates
 Taxa Notes
 Animals, Chordates, Mammals, Nonhuman Mammals, Nonhuman Vertebrates,
 Nonhuman Primates, Primates, Vertebrates
 RN 60-33-3 (LINOLEIC ACID)
 6217-54-5Q (DOCOSAHEXAENOIC ACID)
 25167-62-8Q (DOCOSAHEXAENOIC ACID)
 32839-18-2Q (DOCOSAHEXAENOIC ACID)
 51-61-6 (DOPAMINE)

=> => fil wpix

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FILE LAST UPDATED: 13 DEC 2004 <20041213/UP>
 MOST RECENT DERWENT UPDATE: 200480 <200480/DW>
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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 Derwent Chemistry Resource display fields <<<

=> d l84 all abeq tech abex tot

L84 ANSWER 1 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2004-804565 [79] WPIX
DNC C2004-280836
TI Animal feed composition useful e.g. for improving development of animal species e.g. livestock species such as cow and sheep, comprises microbial biomass containing long chain **omega-3 fatty acid**.
DC B05 C03 D13 D16
IN EDWARDS, S
PA (UYNE-N) UNIV NEWCASTLE-UPON-TYNE
CYC 108
PI WO 2004095940 A1 20041111 (200479)* EN 29 A23K001-00 <--
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE
LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE
DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ
OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG
US UZ VC VN YU ZA ZM ZW
ADT WO 2004095940 A1 WO 2004-GB1724 20040422
PRAI GB 2003-10521 20030508; GB 2003-9453 20030425
IC ICM A23K001-00
ICS A23K001-16; A23K001-18
AB WO2004095940 A UPAB: 20041208
NOVELTY - An animal feed composition comprises a microbial biomass containing a long chain **omega -3 fatty acid**.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for improving the development of an animal species comprising:
(1) administering to the animal, a composition as above, where the **fatty acid** is provided during late gestation and/or during lactation; and
(2) allowing an infant of the species to suckle on the animal administered the long chain **fatty acid**.
ACTIVITY - None given.
MECHANISM OF ACTION - None given.
USE - As animal feed used during late gestation or during lactation of an animal; for improving the development of an animal species, preferably livestock species, especially cow, sheep (particularly pregnant sheep), goat, horse, mink, or pig (particularly pregnant pig), companion mammal (particularly dog, cat hamster, mouse, rabbit or pot bellied pigs) (all claimed).
ADVANTAGE - The composition increases the viability, weight, development and **behavior** of animals. The supplementation of the sow or sheep diet with the composition results in piglets or lambs that show increased post-weaning weight, which has been associated in previous work with improved health and **behavioral** patterns. The supplementation of sow diet with docosaheptaenoic acid during late gestation improves piglet viability; feed intake/growth rate after weaning; and final piglet weight at around 8 weeks of age.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: B04-B01B; B04-F09; B05-B01P; B10-C04E; B14-E11; C04-B01B; C04-F09; C05-B01P; C10-C04E; C14-E11; D03-G04
TECH UPTX: 20041208
TECHNOLOGY FOCUS - FOOD - Preferred Composition: The animal feed is a gestation feed, weaning feed or lactation feed.
TECHNOLOGY FOCUS - BIOLOGY - Preferred Components: The microbial biomass is an algal biomass. The algal biomass is derived from an edible algae selected from *Cryptocodinium* spp., *Phaedactylum* spp., *Isochrysis* spp., *Schizochytrium* spp., *Thaustochytrium* spp. or *Ulkenia* spp..

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The long chain **omega-3 fatty acid** is present at not less than 3 g/kg feed.

Preferred Components: The long chain **fatty acid** is a free **fatty acid** or its ester. The free **fatty acid** is selected from triglyceride, diglyceride, monoglyceride, phospholipids, glycolipid, sulpholipid or sphingolipid. The long chain **fatty acid** is provided during the period up until weaning.

ABEX UPTX: 20041208
SPECIFIC COMPOUNDS - The long chain **omega-3 fatty acid** is docosahexaenoic acid.

ADMINISTRATION - The **fatty acid** is administered during late gestation and during lactation period. The docosahexaenoic acid is administered to the pig once daily during late gestation or twice daily during the lactation period (all claimed).

EXAMPLE - 89 Treatment ewes that received biomass containing docosahexaenoic acid supplement exhibited significantly longer gestation length than 83 controls.

L84 ANSWER 2 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2004-642580 [62] WPIX

DNC C2004-231119

TI Nutritional supplement for companion animals, e.g. **dogs** or **cats**, comprises microencapsulated powder derived from fish oil and/or sea oil having eicosapentaenoic acid and docosahexaenoic acid for increase serum levels.

DC D13

IN MACKINNON, W

PA (MACK-I) MACKINNON W

CYC 108

PI WO 2004075653 A1 20040910 (200462)* EN 28 A23K001-16 <--
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE
LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE
DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ
OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG
US UZ VC VN YU ZA ZM ZW

CA 2420266 A1 20040828 (200462) EN A23K001-16 <--

ADT WO 2004075653 A1 WO 2004-CA160 20040205; CA 2420266 A1 CA 2003-2420266
20030228

PRAI CA 2003-2420266 20030228

IC ICM A23K001-16

ICS A23K001-18

AB WO2004075653 A UPAB: 20040928

NOVELTY - A nutritional supplement comprises microencapsulated powder derived from fish oil and/or sea oil having eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) for increase of serum levels of EPA and DHA in the companion animals.

USE - The invention is for companion animals (claimed), e.g. **dog** and **cat**, to prevent or treat renal disease, dermatological disease, or cardiovascular disease. It is used as an anti-inflammatory in companion animals. (All claimed)

ADVANTAGE - The invention provides positive health effects for animals associated with **omega-3 fatty acids**. It is convenient to use, retains freshness, and avoids off or tainted tastes in the relatively small quantities that are associated with companion animals.

Dwg.0/0

FS CPI

FA AB

MC CPI: D03-G; D03-H01T

TECH UPTX: 20040928

TECHNOLOGY FOCUS - FOOD - Preferred Composition: The nutritional supplement contains (mg/g) EPA (approximately 182), and DHA (135). Preferred Process: The nutritional supplement is administered by top dressing.

Preferred Component: The nutritional supplement is in a foil package.

L84 ANSWER 3 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2004-339652 [31] WPIX

DNC C2004-128813

TI Composition useful for influencing **behavior** e.g. memory, learning and disorientation in young, adult or aged pet animals (e.g. dog or cat) comprises an **omega-3 fatty acid** or its mixture and a carrier.

DC D13 E17

IN DODD, C E; FRITSCH, D A; JEWELL, D; ZICKER, S C

PA (DODD-I) DODD C E; (FRIT-I) FRITSCH D A; (JEWE-I) JEWELL D; (ZICK-I) ZICKER S C

CYC 1

PI US 2004068010 A1 20040408 (200431)* 3 A61K031-202

ADT US 2004068010 A1 US 2002-65326 20021003

PRAI US 2002-65326 20021003

IC ICM A61K031-202

AB US2004068010 A UPAB: 20040514

NOVELTY - A composition comprises an **omega-3 fatty acid** or its mixture and a carrier.

ACTIVITY - Nootropic; Neuroprotective.

MECHANISM OF ACTION - None given.

o USE - For influencing **behavior** in young, adult or aged pet animals (e.g. dog or cat, which does not have cancer or arthritis and has an age of 1 - 7 years) (all claimed). The **behavior** includes memory, learning, disorientation (including at least one of awareness of surroundings, circling, aimless activity and inappropriate vocalization), interaction including at least one of family recognition, animal recognition, family interaction, animal interaction, greeting enthusiasm, attention seeking, response to verbal commands, activity such as agility and level of activity, irregular sleep pattern, house training and any **behavior** associated with age related cognition decline (ARCD).

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D03-G; E10-C04H

ABEX UPTX: 20040514

ADMINISTRATION - The composition is administered systemically by oral ingestion. No dosage given.

EXAMPLE - A composition comprised (weight%): protein (15 - 23), fat (7 - 15), carbohydrate (40 - 60) and eicosapentaenoic acid/docosaheptaenoic acid EPA/DHA (1 - 5).

L84 ANSWER 4 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2004-080285 [08] WPIX

CR 2004-592811 [57]

DNC C2004-032946

TI **Fatty acid** calcium salt product useful as **animal nutritional** supplements, comprises at least one **omega-3 fatty acid**.

DC B05 D13

IN FREDERIKSEN, E D; STROHMAIER, G K; LUCHINI, N D; VARCHO, M A

PA (FRED-I) FREDERIKSEN E D; (STRO-I) STROHMAIER G K; (NORE-N) NOREL ACQUISITION CORP

CYC 107

PI US 2003130348 A1 20030710 (200408)* 3 A61K031-202
WO 2004046086 A1 20040603 (200436) EN C07C231-00
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE
LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE
DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM
PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US
UZ VC VN YU ZA ZM ZW

AU 2003291054 A1 20040615 (200470) C07C231-00

ADT US 2003130348 A1 Provisional US 2001-334471P 20011116, US 2002-299337
20021118; WO 2004046086 A1 WO 2003-US36821 20031118; AU 2003291054 A1 AU
2003-291054 20031118

FDT AU 2003291054 A1 Based on WO 2004046086

PRAI US 2001-334471P 20011116; US 2002-299337 20021118

IC ICM A61K031-202; C07C231-00

ICS C07C053-126

AB US2003130348 A UPAB: 20041101

NOVELTY - A **fatty acid** calcium salt product (I)

comprises at least one **omega-3 fatty**

acid (1-25 weight%) selected from decosahexanoic acid (DHA),

eicosapentanoic acid (EPA), decosapentanoic acid (DPA) or linoleic acid
(LA).

ACTIVITY - None given.

MECHANISM OF ACTION - Animal fertility promoter.

USE - For enriching the **omega-3 fatty**

acid content of a variety of food or food products including

pet food products, as rumen-inert feed supplements for ruminants

(e.g. **cattle**), as nutritional supplement for humans, other

mammals and non-mammals, including birds and fish and also in animal
fertility enhancement.

ADVANTAGE - (I) having higher levels of **omega-3**

fatty acid can be prepared as a free-flowing and stable
product.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B10-C04E; D03-G01; D03-H01T2

TECH UPTX: 20040202

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Product: Compounds of (I)
can be produced following the high temperature saponification process as
disclosed in US6229031.

L84 ANSWER 5 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2003-903519 [82] WPIX

DNN N2003-721399 DNC C2003-256976

TI Prediction of fatty acid enrichment in **canines**, includes
calculating fatty acid level using new equations and constants.

DC B04 C07 D13 T01

IN BAUER, J E; WALDRON, M K

PA (NEST) NESTEC SA; (TEXA) UNIV TEXAS A & M SYSTEM

CYC 99

PI WO 2003092405 A2 20031113 (200382)* EN 30 A23K001-18 <--

RW: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO
SE SI SK TR

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA
ZM ZW

AU 2003232744 A1 20031117 (200442) A23K001-18 <--

ADT WO 2003092405 A2 WO 2003-EP4902 20030505; AU 2003232744 A1 AU 2003-232744

20030505

FDT AU 2003232744 A1 Based on WO 2003092405

PRAI US 2002-378280P 20020506

IC ICM A23K001-18

AB WO2003092405 A UPAB: 20031223

NOVELTY - Prediction of tissue levels of a population of **fatty acid canines** achieved by feeding a proposed diet of predetermined **fatty acid** composition, comprises calculating a predicted n-6 phospholipid **fatty acid** level as a percentage of total highly unsaturated **fatty acids** (HUFA) computed by (I).

DETAILED DESCRIPTION - Prediction of tissue levels of a population of **fatty acid canines** achieved by feeding a proposed diet of predetermined **fatty acid** composition, comprises calculating a predicted n-6 phospholipid **fatty acid** level as a percentage of total HUFA computed by equation (I).

en%3 = alpha -linoleic acid %daily energy;

en%6 = linoleic acid %daily energy;

en%0 = other **fatty acids** %daily energy;

en%H6 = n-6 HUFA %daily energy;

en%H3 = n-3 HUFA %daily energy;

PC6 = 0.036;

Co = 9;

Ks = 0.14;

HI3 = 0.1;

HC6 = 4;

HC3 = 11;

KI6 = 0.72 (plasma) or 0.034 (neutrophils), and

KI3 = 0.34 (plasma) or 0.8 (neutrophils).

INDEPENDENT CLAIMS are also included for:

(a) a diet formulated by the process;

(b) determining compliance with a prescribed diet for an individual **canine** animal comprising determining an expected **fatty acid** level for the prescribed diet, and

(c) a programmable device comprising input and output mechanisms, and a calculator.

USE - Used for predicting tissue levels of a population of **fatty acids** in **canines**.

ADVANTAGE - The method allows the amount of HUFAs in a specific **canine** to be calculated based on the **canine's** diet without requiring costly and time-consuming sample analysis.

Dwg.0/4

FS CPI EPI

FA AB; GI

MC CPI: B11-C09; C11-C09; D03-G

EPI: T01-J01; T01-J08A

TECH UPTX: 20031223

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Process: A predicted n-3 phospholipid **fatty acid** level is calculated by equation (II).

The prediction process further comprises comparing the predicted %(n-6)HUFA to a predetermined level, and determining the proposed diet to be acceptable if the predicted %(n-6)HUFA does not exceed the predetermined level.

The predicted percentage of linoleic acid in plasma is calculated by the equation $-0.62(en\%6)^2 + 2.75(en\%6) + 4.04$ (III), and that of alpha-linoleic acid by the equation $-0.012(en\%3)^2 + 1.11(en\%-3) + 0.02$ (IV).

PC3 = 0.29;

HI6 = 0.01.

The predetermined level is 75%, 65%, or 50%. The predicted %(n-6)HUFA is greater than a predetermined level.

AN 2002-255591 [30] WPIX
 CR 2000-292965 [25]; 2001-388872 [41]
 DNC C2002-076197
 TI Providing nutrition to critical care animals such as **dogs** or **cats**, by administering artificially produced **canine** or **feline** milk substitute composition comprising specified percentage of protein, fat and carbohydrates.
 DC B04 C03 D13
 IN LEPINE, A J
 PA (LEPI-I) LEPINE A J
 CYC 1
 PI US 2002018828 A1 20020214 (200230)* 8 A23C009-00
 ADT US 2002018828 A1 CIP of US 1998-163778 19980930, Cont of US 1999-362401 19990728, US 2001-829168 20010409
 FDT US 2002018828 A1 Cont of US 6245379
 PRAI US 1999-362401 19990728; US 1998-163778 19980930;
 US 2001-829168 20010409
 IC ICM A23C009-00
 AB US2002018828 A UPAB: 20021120
 NOVELTY - A method for providing nutrition (M) to critical care **canines** and **felines** involves administering an artificially produced **canine** or **feline** milk substitute composition (I).
 DETAILED DESCRIPTION - A method for providing nutrition to a critical care **canine** or **feline** comprises administration of artificially produced **canine** milk substitute composition or **feline** milk substitute composition (I), respectively. The **canine** milk substitute composition comprises on a dry matter basis, from about 35-45% protein, 25-35% fat, and 10-25% carbohydrates. The **feline** milk substitute composition comprises on a dry matter basis, from about 30-50% protein, 25-50% fat, and 10-25% carbohydrates, where the source of protein comprises casein and whey in weight ratio of about 1:1.
 USE - (M) is useful for providing nutrition to critical care animals such as **dogs** and **cats** (claimed).
 ADVANTAGE - The **canine** or **feline** milk substitute composition provides high quality nutrient sources, are highly digestible, and provide a relatively high energy density. The milk replacers provide unique amino acid and fatty acid profiles. To determine the effect of milk composition on growth and body composition of puppies, forty colony bred Beagle puppies were randomly assigned to 3 treatments: bitch milk (CTL), milk replacer I (MR-I) (comprising (in percentage) water (80.0), Na/Ca caseinate (5.233), whey protein concentrate (3.491), maltodextrin (2.646), butter oil (2.412), canola oil (1.764), mineral premix1 (1.147), lactose (1.134), corn oil (0.869), dried egg yolk (0.506), emulsifier (0.200), vitamin premix2 (0.128), arachidonic acid supplement (0.100), fructooligosaccharide (0.100), L-histidine HCl (0.090), L-arginine (0.060), choline chloride (0.055), docosahexaenoic acid (DHA) supplement (0.040), and ascorbic acid (0.025)), and milk replacer II (MR-II) comprising 33% protein and 40% fat. Milk replacer treatments were subsequently fed to the puppies every 3 hours for days 1-2 and decreased to 4 feedings/day for the remainder of the study (30 days). No differences were detected in intake between the MR puppies, however, puppies fed MR-I had increased average daily weight gain and gain efficiency over MR-II fed puppies, i.e., when the amount of product consumed was measured against the weight gained, MR-I fed puppies had a greater increase in body weight, indicating that the MR-I formulation was better at meeting the growth needs of puppies. The body composition of puppies fed MR-I did not differ from CTL puppies in body fat percentage, but was higher in lean tissue than both CTL and MR-II. Puppies fed MR-II were found to have the highest body fat and lowest lean tissue. These data indicated that the MR-I formulation, which was more similar to batch milk in fatty acid profile and amino acid profile, resulted in enhanced structural tissue growth

indicating an improved nutritional status in neonatal puppies.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-B01C1; B04-C02B; B04-N02; B06-D01; B07-A02B; B07-D09; B10-A17;
B10-B01B; B10-B02C; B10-C04E; C04-B01C1; C04-C02B; C04-N02; C06-D01;
C07-A02B; C07-D09; C10-A17; C10-B01B; C10-B02C; C10-C04E; D03-B11;
D03-G; D03-H01T

TECH

UPTX: 20020513

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Method: In (M), the source of protein comprises casein and whey in a weight ratio of about 70:30. The composition comprises about 38% protein, 28% fat and 19% carbohydrates. The source of fat is selected from corn oil, canola oil, butter oil, arachidonic acid, docosahexaenoic acid (DHA), or their blends. The **canine** milk substitute composition contains **fatty acids** expressed as a percentage of total **fatty acids** on a dry matter basis, of from 15-19% of palmitic acid, 5-9% stearic acid, 34-38% oleic acid, 17-21% linoleic acid, 1-4% alpha-linolenic acid, 0.5-2% arachidonic acid, 0.2-1% DHA, 2-5% **OMEGA-3-fatty acids**, 18-22% **OMEGA-6-fatty acids**, and 1-4% **trans fatty acids**. The amino acids are expressed as a percentage of total essential amino acids on a dry matter basis of from about 6-10% arginine, 4-8% histidine, 8-12% isoleucine, 16-20% leucine, 13-17% lysine, 2-7% methionine, 6-10% phenylalanine, 8-12% threonine, 1-4% tryptophan, 9-13% valine, 2-5% cystine, and 2-6% tyrosine. The **canine** milk substitute composition contains from about 4-8% by weight lactose, 0.50% by weight fructooligosaccharide, 27-37% by weight **fatty acids**, and 15-25% by weight essential amino acids. In the **feline** milk substitute composition, the protein is present in amounts from 35-45%, preferably 40%, the fat is present in amounts from about 30-40%, preferably 35%, and the carbohydrates are present in amounts from about 13-20%, preferably 15-17%. The source of carbohydrates comprises a combination of lactose and maltodextrin. The lactose or maltodextrin is present in an amount of from about 6.5-10%, preferably 7.5-8.5%. The lactose and maltodextrin are present in substantially equal amounts. The composition further comprises arachidonic acid, DHA, butter oil, canola oil and corn oil. The composition is expressed as a percentage of total **fatty acids** on a dry matter basis, from about 17-20%, preferably 18% linoleic acid, 0.5-1.0%, preferably 0.7% of arachidonic acid, and 0.2-0.4%, preferably 0.3% of DHA. The composition is expressed as a percentage of total essential amino acids on a dry matter basis, from about 4.0-8.0%, preferably 6.5% arginine, 1.0-3.0%, preferably 1.7% tryptophan, and from about 2.0-5.0%, preferably 3.7% valine.

ABEX

UPTX: 20020513

EXAMPLE - A **canine** milk substitute was prepared by mixing (in percentage) water (80.0), Na/Ca caseinate (5.233), whey protein concentrate (3.491), maltodextrin (2.646), butter oil (2.412), canola oil (1.764), mineral premix1 (1.147), lactose (1.134), corn oil (0.869), dried egg yolk (0.506), emulsifier (0.200), vitamin premix2 (0.128), arachidonic acid supplement (0.100), fructooligosaccharide (0.100), L-histidine HCl (0.090), L-arginine (0.060), choline chloride (0.055), docosahexaenoic acid (DHA) supplement (0.040), and ascorbic acid (0.025). To compare above formulation with currently available milk replacer products, an analysis of several commercially available bitch milk replacer formulas was conducted. The **canine** milk substitute composition was found to be much closer to natural bitch milk than other products.

L84 ANSWER 7 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2002-162933 [21] WPIX

DNC C2002-050179

TI **Pet** food composition for domesticated **cats** and **dogs** **pet** food recommended with kosher diet for health

and/or spiritual reasons, comprises preset amount of kosher meat, carbohydrates-, fiber-, fat-sources and fatty acids.

DC D13
IN LACOMBE, M; MICHELS, M
PA (LACO-I) LACOMBE M; (MICH-I) MICHELS M
CYC 1
PI US 6277435 B1 20010821 (200221)* 4 A23L001-31
ADT US 6277435 B1 US 2001-793659 20010226
PRAI US 2001-793659 20010226
IC ICM A23L001-31
AB US 6277435 B UPAB: 20020403

NOVELTY - A **pet** food composition comprises 15-60 weight % of kosher meat, carbohydrates source, fiber source, fat source and at least 2.44% of omega -6 **fatty acids** and 0.49% **omega -3 fatty acids**. The kosher meat is obtained from a healthy animal, washed in cold water and salted.

USE - In **pet** food, specifically domesticated **cats** and **dogs** for which a kosher diet is recommended for health and/or spiritual reasons.

ADVANTAGE - The **pet** food is highly palatable with a high digestibility factor, promoting the **pet**'s health (more nutrients absorbed with less efforts eliminating). **Pet** owners deal with a lesser amount of waste (feces) and enjoys the companionship of a healthier **pet**. **Pet** owners can share their philosophical believes with their **pets**. **Pet** food manufacture will find an immediate market amongst Jewish **pet** owners and other **pet** owners concerned with their **pets** health. The **pet** food is highly nutritional for **pets** regardless of their ages, ailments, or levels of activity. The **pet** food does not promote debilitating diseases. The use of cold water and an extensive salting and soaking process lessen the risk of formation of nitrosamines, cancer-causing agents. Salting also reduces or eliminates some types of bacteria, especially campylobacter, a common contaminant of poultry. Also risk of salmonella in chicken is reduced. A high quality meat-based natural **pet** food is obtained, as kosher poultry is raised without hormones or growth stimulants. The **pet** food can be served daily, with noticeable improvements to the animal's health, can easily be mass manufactured at a reasonable cost once the initial koshering process is completed. The product will be instantly embraced by people of Jewish faith who wish to keep a kosher home.

Dwg.0/2

FS CPI
FA AB
MC CPI: D03-G03; D03-G04
TECH UPTX: 20020403

TECHNOLOGY FOCUS - FOOD - Preferred Ingredients: The carbohydrate source consists of rice and flour, the fiber source consists of carrots, and the fat source consists of a kosher meat source. The kosher meat is prepared in accordance with kosher guidelines.

L84 ANSWER 8 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2002-082821 [11] WPIX
DNC C2002-025012
TI **Pet** food composition useful for reducing inflammatory responses in **cats** comprises specific fatty acids in a specific weight ratio.

DC B04 C03 D13
IN HAYEK, M G; REINHART, G A
PA (HAYE-I) HAYEK M G; (REIN-I) REINHART G A; (IAMS-N) IAMS CO
CYC 96
PI WO 2001082720 A1 20011108 (200211)* EN 20 A23K001-16 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
 DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
 LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
 SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

* US 2001051206 A1 20011213 (200211) A23D009-00

AU 2001057435 A 20011112 (200222)

EP 1280416 A1 20030205 (200310) EN A23K001-16 <--

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
 RO SE SI TR

BR 2001010534 A 20030401 (200327) A23K001-16 <--

TW 542698 A 20030721 (200406) A23K001-00 <--

JP 2004510404 W 20040408 (200425) 34 A23K001-16 <--

MX 2002010767 A1 20031101 (200468) A23K001-16 <--

ADT WO 2001082720 A1 WO 2001-US13889 20010430; US 2001051206 A1 Provisional US
 2000-201029P 20000501, US 2001-845941 20010430; AU 2001057435 A AU
 2001-57435 20010430; EP 1280416 A1 EP 2001-930947 20010430, WO
 2001-US13889 20010430; BR 2001010534 A BR 2001-10534 20010430, WO
 2001-US13889 20010430; TW 542698 A TW 2001-110342 20010430; JP 2004510404
 W JP 2001-579611 20010430, WO 2001-US13889 20010430; MX 2002010767 A1 WO
 2001-US13889 20010430, MX 2002-10767 20021031

FDT AU 2001057435 A Based on WO 2001082720; EP 1280416 A1 Based on WO
 2001082720; BR 2001010534 A Based on WO 2001082720; JP 2004510404 W Based
 on WO 2001082720; MX 2002010767 A1 Based on WO 2001082720

PRAI US 2000-201029P 20000501; US 2001-845941 20010430

IC ICM A23D009-00; A23K001-00; A23K001-16

ICS A23K001-18; A61K031-202; A61K031-23; A61K031-232;

A61P029-00; A61P037-00; A61P043-00

AB WO 200182720 A UPAB: 20020215

NOVELTY - A **pet** food composition comprises **fatty**

acids such as omega -6 and omega -3

fatty acids in a weight ratio of 5:1. The majority of

omega -3 fatty acids comprises alpha

-linolenic acid. The composition comprises about 7 - 14 weight% of total fat.

ACTIVITY - Antiinflammatory.

MECHANISM OF ACTION - None given.

USE - For reducing inflammatory responses in **cats**
 (claimed); for **felines**.

ADVANTAGE - The composition reduces inflammatory responses and
 provides less immunosuppression compared to **cats** fed a
pet food composition containing a marine-based source of
omega -3 fatty acids. The

composition may also be fortified with vitamins and micronutrients so that
 diet consumed provides for the other general nutritional needs of the
cat e.g. kibble, moist chunk foods, moist canned **cat**
 food, or **cat** treats.

Dwg.0/5

FS CPI

FA AB; DCN

MC CPI: B04-B01C1; B10-C04E; B14-E11; B14-G01; B14-S12; C04-B01C1; C10-C04E;
 C14-E11; C14-G01; C14-S12; D03-G; D03-G01

TECH UPTX: 20020215

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The
 composition comprises (wt.%) omega-6 **fatty acid** (20)
 and omega-3 **fatty acids** (4).

Preferred Components: The omega-3 **fatty**

acids further comprise eicosapentaenoic acid and/or

docosahexaenoic acid. The source of alpha-linolenic acid is such as
 flaxseed oil, which is a plant based source of omega-3

fatty acids.

ABEX UPTX: 20020215

EXAMPLE - Female tabby **cats** (19 - 20 months old with a average
 body weight of 4.9 kg) were adapted to a nutritionally balanced diet for
 12 weeks prior to assignment to groups of 14 **cats** per group in 2

groups i.e. **cat** fed with the control diet and **cat** fed with a diet containing flaxseed oil. The feeding protocol lasted for 12 weeks. All the diets contained 22 weight% total lipids. The control diet comprised (%) lipid (a) (22), palmitic acid (16:0) (b) (23.0), linoleic acid (18:2n-6) (c) (18.8), gamma-linolenic acid (18:3n-6) (d) (0.2), arachidonic acid (20:4n-6) (e) (0.8), alpha-linolenic acid (18:3n-3) (f) (0.8), eicosapentaenoic acid (20:5n-3) (g) (0.03), docosahexaenoic acid (22:6n-3) (h) (0.09), total n-6 **polyunsaturated fatty acids** (POEA) (i) (20.3), total n-3 PUFA (j) (1.1), n-6:n-3 ratio (k) (20:1), vitamin E (mg/kg) (l) (110). The diet containing flaxseed oil (test) comprised (a) (22), (b) (22.3), (c) (18.9), (d) (0.2), (e) (0.7), (f) (4.0), (g) (0.10), (h) (0.13), (i) (20.4), (j) (4.5), (k) (5:1), (l) (110). The control diet contained poultry fat which was high in n-6 PUFA (n-6:n-3 PUFA ratio of 20:1) while the test diet contained flaxseed oil which was mixed with poultry fat to obtain n-6:n-3 PUFA ratio of 5:1. The results showed that the **fatty acid** composition (%) in plasma for control/test diet for 6 and 12 weeks was alpha-linolenic acid (ALNA) = 0.30/1.62 and 0.31/1.50; EPA (eicosapentaenoic acid) = 0.12/0.11 and 0.11/0.12; DHA docosahexaenoic acid) = 0.77/0.55 and 0.64/0.59; n-6 PUFA = 38.7/37.8 and 39.2/39.2; n-3 PUFA = 1.42/2.47 and 1.25/2.40 and n-6:n-3 = 27.93/15.44 and 31.49/16.46 respectively.

L84 ANSWER 9 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
 AN 2002-048985 [06] WPIX
 DNC C2002-013619
 TI Improving bone modelling and chondrocyte functioning in growing **canine** comprises feeding **pet** food composition comprising source of n-6 and n-3 **fatty acids**

DC B05 C03 D13
 IN HAYEK, M G; LEPINE, A J; REINHART, G A; WATKINS, B A
 PA (HAYE-I) HAYEK M G; (LEPI-I) LEPINE A J; (REIN-I) REINHART G A; (WATK-I) WATKINS B A; (IAMS-N) IAMS CO
 CYC 95
 PI WO 2001060356 A1 20010823 (200206)* EN 18 A61K031-20
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
 NL OA PT SD SE SL SZ TR TZ UG ZW
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
 DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
 LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
 SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
 US 2002001640 A1 20020103 (200207) A23L001-00
 AU 2001038423 A 20010827 (200216) A61K031-20
 US 6426100 B2 20020730 (200254) A23K001-18 <--
 EP 1255546 A1 20021113 (200282) EN A61K031-20
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
 RO SE SI TR
 US 2003031753 A1 20030213 (200314) A01K001-00
 JP 2003522788 W 20030729 (200358) 20 A61K031-202
 MX 2002007976 A1 20030101 (200373) A23K001-16 <--

ADT WO 2001060356 A1 WO 2001-US5094 20010216; US 2002001640 A1 Provisional US 2000-183294P 20000217, US 2001-785901 20010216; AU 2001038423 A AU 2001-38423 20010216; US 6426100 B2 Provisional US 2000-183294P 20000217, US 2001-785901 20010216; EP 1255546 A1 EP 2001-910860 20010216, WO 2001-US5094 20010216; US 2003031753 A1 Provisional US 2000-183294P 20000217, Cont of US 2001-785901 20010216, US 2002-173141 20020617; JP 2003522788 W JP 2001-559454 20010216, WO 2001-US5094 20010216; MX 2002007976 A1 WO 2001-US5094 20010216, MX 2002-7976 20020816

FDT AU 2001038423 A Based on WO 2001060356; EP 1255546 A1 Based on WO 2001060356; US 2003031753 A1 Cont of US 6426100; JP 2003522788 W Based on WO 2001060356; MX 2002007976 A1 Based on WO 2001060356

PRAI US 2000-183294P 20000217; US 2001-785901 20010216;
 US 2002-173141 20020617
 IC ICM A01K001-00; **A23K001-16**; **A23K001-18**; A23L001-00;
 A61K031-20; A61K031-202
 ICS A01K013-00; A61P019-00; A61P043-00
 AB WO 200160356 A UPAB: 20020128
 NOVELTY - Improving bone modelling and chondrocyte functioning in a
 growing **canine** comprises feeding the **canine** a
pet food composition comprising a source of n-6 and n-
3 fatty acids and optionally 20-40 weight% crude
 protein, 4-30 weight% fat, 2-20 weight% total dietary fiber and a source of
 carbohydrate.

ACTIVITY - Osteopathic; Dermatological; Antiinflammatory.

MECHANISM OF ACTION - None given in source material.

USE - Used for improving bone health and promoting bone development
 in growing **canines**. The composition is also used for promoting
 synthesis and tissue accumulation of down regulating elements of
 inflammation and tissue accumulation of anti-inflammatory PGE3 series
 prostaglandins. The n-6 and n-3 **fatty**
acids are known to have a beneficial effect on **canines**
 with inflammatory skin conditions (see CA2145716).

32 Eight week old purpose bred puppies were allocated four dietary
 treatments differing in **fatty acid** source. Treatment
 diets were isonitrogenous and isocaloric. The **canine** growth diet
 was formulated to contain different ratios of n-6/n-3
fatty acids, 5:1, 5:1, 50:1 and 25:1 using lipid sources
 comprising docosahexaenoic acid (DHA), menhaden oil and safflower oil
 source (Treatment 3 = DHA; Treatment 4 = DHA). Puppies were conditioned
 for 2 weeks followed by feeding the treatment diets for 16 weeks.

Results indicated that diets rich in n-3
fatty acids reduced pro-inflammatory eicosanoid (PGE2)
 synthesis and promote tissue accumulation of down regulating elements of
 inflammation in bone compartments.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-B01C1; B04-B01C2; B10-C04E; B14-N01; B14-S12; C04-B01C1;
 C04-B01C2; C10-C04E; C14-N01; C14-S12; **D03-G**

TECH UPTX: 20020128

TECHNOLOGY FOCUS - FOOD - Preferred Composition: The ratio of n-6
fatty acids to n-3 **fatty**

acids is 20:1-1:1, preferably 10:1-5:1, especially 8:1-5:1. At
 least 22 wt.% of the total **fatty acids** in the
 composition are n-6 **fatty acids** and at least 3 wt.% of
 the total **fatty acids** in the composition are n
 -3 **fatty acids**.

The composition comprises 0.88-6.6 wt.% n-6 **fatty acids**
 and 0.16-1.2 wt.% n-3 **fatty acids**,
 on a dry matter basis.

The n-3 **fatty acids** comprise
 eicosapentaenoic acid or docosahexaenoic acid.

The composition also comprises 1-11 wt.% of supplemental total dietary
 fiber of fermentable fibers having an organic matter disappearance of
 15-60 wt.% when fermented by fecal bacteria for 24 hours.

L84 ANSWER 10 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2002-012137 [02] WPIX

DNC C2002-003202

TI Animal feed formulations and supplements, especially for **dogs**,
cats and horses, are produced using fractions of flesh of green
 and blue edible mussels.

DC D13

IN OLBERTS, M

PA (OLBE-I) OLBERTS M

CYC 1

PI DE 10047563 A1 20011025 (200202)* 4 A23K001-10 <--

ADT DE 10047563 A1 DE 2000-10047563 20000922

PRAI DE 2000-10020012 20000422

IC ICM A23K001-10

ICS A23K001-18

AB DE 10047563 A UPAB: 20020109

NOVELTY - Production of healthy, health- and performance-promoting animal feed, suited to the type of animal, uses fractions of the flesh of the green edible mussel *Perna Canaliculus* and the blue edible mussel *Mytilus edulis*, especially in the production of feed for **dogs**, **cats** and/or horses.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) animal feed formulations, especially for **dogs** and

cats;

(2) animal feed formulations, especially for horses;

(3) animal feed supplements containing 50-98% flesh and/or extract of *Perna Canaliculus*;

(4) feed supplements for **dogs**, **cats** and horses;

and

(5) feed supplements for **cats**.

USE - The products are animal feed or feed supplements, especially for **dogs**, **cats** and horses (all claimed).

ADVANTAGE - The products, which contain a high fraction of unsaturated **fatty acids**, e.g. **omega**

3 and omega 6, promote the health and performance, especially growth, condition and state, of the animals and can be produced relatively economically.

Dwg.0/0

FS CPI

FA AB

MC CPI: D03-G05

TECH UPTX: 20020109

TECHNOLOGY FOCUS - FOOD - Preferred Process: The flesh of the mussels is separated from the shells and dried carefully, especially freeze dried, then the oil present is extracted by a high pressure process and/or with a solvent, e.g. alcohol, and separated from the remaining flesh extract containing protein. The resultant high-protein extract is used as a valuable constituent for making animal feed. The mussel oil recovered carefully, especially without heating, is also used as a valuable constituent or supplement for making animal feed, in amounts suited to the animals concerned. The amounts of extract and/or oil used in the feed depend on the species or breed of the animal and its biological condition, e.g. young, old, convalescing, hard-working etc.

Preferred Formulations: Animal feed formulations, especially for **dogs** and **cats**, contain up to 40% calf bone meal, up to 20% silica, up to 10% sunflower oil, up to 98% mussel oil from the green and blue mussels, up to 98% mussel protein and up to 98% blue mussel flash or extract. Animal feed formulations, especially for horses, contain up to 40% oats, up to 20% barley, up to 20% silica, up to 10% maize, up to 98% mussel oil from the green and blue mussels, up to 98% mussel protein and up to 98% blue mussel flash or extract. Both types of formulation may contain up to 98% grape seed flour or extract. Supplements: (claimed) The supplements for **dogs**, **cats** and horses contain up to 20% malt extract, up to 10% marine alga powder, up to 5% yeast, up to 5% horsetail, up to 2% methionine and 50-98% flesh and/or extract of *Perna Canaliculus*. The supplements for **cats** contain up to 98% flesh and/or extract of *Perna Canaliculus*.

TI Process for enhancing reproductivity performance in **pet** animals such as **dog** and **cat**, involves feeding animal with diet containing omega-6 and **omega-3 fatty acids** in predetermined ratio.

DC D13

IN KELLEY, R L

PA (IAMS-N) IAMS CO

CYC 93

PI WO 2001037678 A1 20010531 (200137)* EN 47 A23K001-16 <--
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
 NL OA PT SD SE SL SZ TR TZ UG ZW
 W: AE AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM EE
 ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
 LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI
 SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
 AU 2001017947 A 20010604 (200153) A23K001-16 <--
 BR 2000015849 A 20020716 (200255) A23K001-16 <--
 EP 1233679 A1 20020828 (200264) EN A23K001-16 <--
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
 RO SE SI TR
 JP 2003514558 W 20030422 (200336) 50 A23K001-18 <--
 CN 1409606 A 20030409 (200345) A23K001-16 <--
 MX 2002005220 A1 20030101 (200373) A23K001-16 <--
 NZ 519081 A 20031031 (200380) A23K001-16 <--
 ZA 2002004080 A 20031029 (200381) 57 A23K000-00
 US 6737078 B1 20040518 (200433) A23K001-18 <--
 EP 1233679 B1 20040616 (200439) EN A23K001-16 <--
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
 DE 60011667 E 20040722 (200450) A23K001-16 <--

ADT WO 2001037678 A1 WO 2000-US32178 20001122; AU 2001017947 A AU 2001-17947 20001122; BR 2000015849 A BR 2000-15849 20001122, WO 2000-US32178 20001122; EP 1233679 A1 EP 2000-980724 20001122, WO 2000-US32178 20001122; JP 2003514558 W WO 2000-US32178 20001122, JP 2001-539307 20001122; CN 1409606 A CN 2000-817014 20001122; MX 2002005220 A1 WO 2000-US32178 20001122, MX 2002-5220 20020524; NZ 519081 A NZ 2000-519081 20001122, WO 2000-US32178 20001122; ZA 2002004080 A ZA 2002-4080 20020522; US 6737078 B1 Provisional US 1999-167282P 19991124, US 2000-718846 20001122; EP 1233679 B1 EP 2000-980724 20001122, WO 2000-US32178 20001122; DE 60011667 E DE 2000-00011667 20001122, EP 2000-980724 20001122, WO 2000-US32178 20001122

FDT AU 2001017947 A Based on WO 2001037678; BR 2000015849 A Based on WO 2001037678; EP 1233679 A1 Based on WO 2001037678; JP 2003514558 W Based on WO 2001037678; MX 2002005220 A1 Based on WO 2001037678; NZ 519081 A Based on WO 2001037678; EP 1233679 B1 Based on WO 2001037678; DE 60011667 E Based on EP 1233679, Based on WO 2001037678

PRAI US 1999-167282P 19991124; US 2000-718846 20001122

IC ICM A23K000-00; A23K001-16; A23K001-18
 ICS A01K067-00; A01K067-02; A23K001-165; A61D019-00

AB WO 200137678 A UPAB: 20021031
 NOVELTY - A process for enhancing reproductivity performance in a **pet** animal, involves feeding the animal with a diet containing omega-6 and **omega-3 fatty acids**.
 The ratio of omega-6 **fatty acids** to omega-3 **fatty acids** is 3.5:1-12.5:1.
 DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for maintaining maternal essential **fatty acid** status in **pet** animals which involves feeding the animal with preset ratio of omega-6 and **omega-3 fatty acids**.
 USE - For enhancing **cats** and **dogs** reproductive performance for decreasing still births (claimed).
 ADVANTAGE - The animals fed with the diet containing omega-6 and **omega-3 fatty acids** maintained a better essential **fatty acids** status thereby declined

in reproductive performance is attenuated in subsequent parities. The animals fed also demonstrated improved reproductive performance with increased number of live births and increased number of neonates at weaning. The **dogs** maintained on the diet found to have increased litter size and reduced number of misconceptions as compared with commercial diets.

Dwg.0/19

FS CPI

FA AB

MC CPI: D03-G01

TECH UPTX: 20010704

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Amount: At least 50% of the total **fatty acids** in the diet are omega-6

fatty acids and 2% of the total **fatty**

acids are omega-3 **fatty**

acids. Preferred Composition: The diet comprises 2.5-7.5 weight%

of omega-6 **fatty acids** and 0.3-1.5 wt.% of

omega-3 **fatty acids**. The ratio of

omega-6 to omega-3 **fatty acids** is

5:1-10:1, preferably 5:1-8:1. The diet further comprises 22-44 wt.% of

protein and 10-30 wt.% of fat for **dogs**, and 25-35 wt.% of

protein and 15-25 wt.% of fat for **cats**. The animal is fed

throughout reproductivity process.

ABEX UPTX: 20010704

EXAMPLE - The dietary effect of the **dogs** maternal essential

fatty acids (EFA) status and reproduction in

cats was evaluated by comparing with a commercial diet. The test

diet composition (A) contained 36% of protein and 23% of fat. Diet A was

formulated to contain 4.2% of omega-6 and 0.6% of omega-

3 **fatty acids** in a weight ratio of 7.3:1. A

comparative diet (B) contained 4.3 weight% of omega-6 and 0.26 weight%

omega-3 **fatty acids** in a weight

ratio of 16.3:1. The **cats** were fed with common maintenance diet

and divided in to two groups, sampled for whole blood, and transition onto

their respective diets. The **cats** were allowed to consumed the

test diet 45 days prior to insemination. Pregnancy was confirmed at 21

days (G21) post breeding. Blood samples were collected for EFA status

determination at G49, parturition+2 days (P2), P14, P28, P56 and P84. The

blood samples were processed and analyzed. The result showed that

cats fed with diet A were found to have significantly higher

(improved) EFA index rating when compared to **cats** fed with diet

B. The improved maintenance of maternal EFA status by diet A was more

impressive and the **cats** also demonstrated superior reproductive

performance and able to recover from nutrient demands of reproduction due

to increased EFA index rate.

L84 ANSWER 12 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2000-292965 [25] WPIX

CR 2001-388872 [41]; 2002-255591 [30]

DNC C2000-088502

TI Artificially produced **canine** milk substitute composition for nursing **puppies** and critical care **canines**, includes a predefined amount of protein, fat, and carbohydrates.

DC D13

IN LEPINE, A

PA (IAMS-N) IAMS CO

CYC 88

PI WO 2000018247 A1 20000406 (200025)* EN 23 A23C011-04

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SL SZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ

TM TR TT UA UG VZ VN YU ZA ZW
 AU 9960283 A 20000417 (200035)
 EP 1130974 A1 20010912 (200155) EN A23C011-04
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
 RO SE SI
 JP 2002525087 W 20020813 (200267) 26 A23K001-16 <--
 MX 2001002440 A1 20011001 (200274) A23C011-04
 AU 753725 B 20021024 (200277) A23C011-04
 NZ 509776 A 20030725 (200357) A23C011-04
 RU 2218812 C2 20031220 (200413) A23K001-18 <--
 MX 219056 B 20040209 (200474) A23C011-04
 ADT WO 2000018247 A1 WO 1999-US20469 19990907; AU 9960283 A AU 1999-60283
 19990907; EP 1130974 A1 EP 1999-969649 19990907, WO 1999-US20469 19990907;
 JP 2002525087 W WO 1999-US20469 19990907, JP 2000-571773 19990907; MX
 2001002440 A1 MX 2001-2440 20010308; AU 753725 B AU 1999-60283 19990907;
 NZ 509776 A NZ 1999-509776 19990907, WO 1999-US20469 19990907; RU 2218812
 C2 WO 1999-US20469 19990907, RU 2001-104337 19990907; MX 219056 B WO
 1999-US20469 19990907, MX 2001-2440 20010308
 FDT AU 9960283 A Based on WO 2000018247; EP 1130974 A1 Based on WO 2000018247;
 JP 2002525087 W Based on WO 2000018247; AU 753725 B Previous Publ. AU
 9960283, Based on WO 2000018247; NZ 509776 A Based on WO 2000018247; RU
 2218812 C2 Based on WO 2000018247; MX 219056 B Based on WO 2000018247
 PRAI US 1998-163778 19980930
 IC ICM A23C011-04; A23K001-16; A23K001-18
 ICS A23C011-00; A23C021-00
 AB WO 200018247 A UPAB: 20041117
 NOVELTY - Artificially produced **canine** milk substitute
 composition comprises, on dry basis, 35-45% protein, 25-35% fat, and
 10-25% carbohydrates.
 DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a
 method for providing nutrition to a critical care **canine**, which
 comprises administering an amount of the invented artificially produced
canine milk substitute composition.
 USE - For nursing puppies and critical care **canines**.
 ADVANTAGE - The milk substitute is based more closely on the actual
 concentrations of essential nutrients in bitch milk and supplies the
 nutritional needs of nursing puppies. The milk replacer provides improved
 fatty acid and amino acid profiles over currently available bitch milk
 replacers, and a high quality, highly digestible nutrient source for
 critical care **canines**.
 Dwg.0/3
 FS CPI
 FA AB
 MC CPI: D03-B11; D03-G
 TECH UPTX: 20000524
 TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The protein
 source comprises casein and whey in a weight ratio of 70:30. The
 composition preferably comprises 38% protein, 28% fat, and 19%
 carbohydrates. It further contains 4-8 wt.% lactose, 0.5 wt.%
 fructooligosaccharide, 27-37 wt.% **fatty acids**, and/or
 15-25 wt.% essential amino acids. The **fatty acids**
 comprise 15-19% palmitic acid, 5-9% stearic acid, 34-38% oleic acid,
 17-21% linoleic acid, 1-4% alpha-linolenic acid, 0.5-2% arachidonic acid,
 0.2-1% docosahexaenoic acid (DHA), 2-5% **Omega 3**
fatty acids, 18-22% **Omega 6 fatty**
acids, and 1-4% **trans fatty acids**. The
 composition may also comprise amino acids containing 6-10% arginine, 4-8%
 histidine, 8-12% isoleucine, 16-20% leucine, 13-17% lysine, 2-7%
 methionine, 6-10% phenylalanine, 8-12% threonine, 1-4% tryptophan, 9-13%
 valine, 2-5% cystine, and 2-6% tyrosine.
 ABEX UPTX: 20000524
 EXAMPLE - A milk substitute was prepared by combining 80% water, 5.233%
 caseinate, 3.491% whey protein concentrate, 2.646% maltodextrin, 2.412%

butter oil, 1.764% canola oil, 1.147% mineral primex, 1.134 lactose, 0.869% corn oil, 0.506% dried egg yolk, 0.2% emulsifier, 0.128% vitamin premix2, 0.1% arachidonic acid supplement, 0.1% fructooligosaccharide, 0.09% l-histidine hydrochloric acid, 0.06% l-arginine, 0.055% choline chloride, 0.04% DHA supplement, and 0.025% ascorbic acid. The formulation (A) were tested in comparison with commercially bitch milk replacer Justborn (JBD), Esbilac (ESB) and the natural bitch milk was used as baseline value (100). The values of protein, fat and carbohydrates were gathered. Formula A had 96.6, 95, and 103.9; ESB had 83.1, 132.6 and 69.3; and JBD had 74.4, 107 and 114.4. Formula A was much closer to natural bitch milk than the other products.

L84 ANSWER 13 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 1994-242394 [30] WPIX

DNC C1994-110688

TI Dietary compsn. for treating dermatosis in **dogs** and **cats**
- contains a poly-unsatd. fatty acid, an antifatulent and biotin.

DC B05 C03 D13

IN MATSUURA, I; SAITO, T; SHIMADA, K

PA (KYOW) KYOWA HAKKO KOGYO KK

CYC 7

PI EP 609056 A2 19940803 (199430)* EN 10 A23K001-16 <--

R: DE FR GB NL

CA 2114338 A 19940728 (199436) A61K035-00

JP 06217710 A 19940809 (199436) 8 A23K001-18 <--

EP 609056 A3 19950322 (199543) A23K001-16 <--

US 5756088 A 19980526 (199828) A01N063-02

EP 609056 B1 19991215 (200003) EN A23K001-16 <--

R: DE FR GB NL

DE 69422066 E 20000120 (200011) A23K001-16 <--

JP 3347381 B2 20021120 (200282) 8 A23K001-18 <--

CA 2114338 C 20040824 (200457) EN A61K035-74

ADT EP 609056 A2 EP 1994-300551 19940126; CA 2114338 A CA 1994-2114338

19940127; JP 06217710 A JP 1993-11984 19930127; EP 609056 A3 EP

1994-300551 19940126; US 5756088 A Cont of US 1994-186549 19940126, US

1995-532389 19950922; EP 609056 B1 EP 1994-300551 19940126; DE 69422066 E

DE 1994-622066 19940126, EP 1994-300551 19940126; JP 3347381 B2 JP

1993-11984 19930127; CA 2114338 C CA 1994-2114338 19940127

FDT DE 69422066 E Based on EP 609056; JP 3347381 B2 Previous Publ. JP 06217710

PRAI JP 1993-11984 19930127

REP No-SR.Pub; 4.Jnl.Ref; EP 241097; FR 2508282; GB 1503094; JP 04290820; JP 51118827

IC ICM A01N063-02; A23K001-16; A23K001-18; A61K035-00;
A61K035-74

ICS A61K031-20; A61K031-40; A61K031-41

AB EP 609056 A UPAB: 19940914

A dietary compsn. for **pets** comprising an antifatulent, a

polyunsatd. fatty acid and biotin is new. The

compsn. contains the antifatulent at 0.00001-10%, the **polyunsatd**

. **fatty acid** at 0.5-50% and biotin at 0.01-1.0%.

USE/ADVANTAGE - The compsn. is useful for the treatment of dermatosis in **pets**, especially **dogs** and **cats**. Dermatitis is caused by a deficiency of essential **fatty acids** and biotin, but dietary supplementation is usually not satisfactory on its own. Conventional treatment of dermatosis used antibacterial agents and steroids which on long term use can lead to side effects (e.g. secondary adrenal cortical hypofunction, gastrointestinal disorders, nephrotoxicity and chill). Dosage is 0.5-20g per day for animals over 15 kg.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-F10; C04-F10; B04-F10B1; C04-F10B1; B06-F03; C06-F03; B10-C04E;
C10-C04E; B14-N17C; C14-N17C; B14-S12; C14-S12; C06-F03; C10-C04;

C14-E03; C14-N17; D03-G

L84 ANSWER 14 OF 14 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
 AN 1980-48089C [27] WPIX
 TI Coat conditioning compsn. for **cats** and **dogs** -
 comprises safflower oil, oil of cloves and opt. cod liver oil and
 vitamin(s).
 DC C03 D13
 PA (FRAS-I) FRASER C E O
 CYC 1
 PI US 4208429 A 19800617 (198027)*
 PRAI US 1974-529021 19741203; US 1975-572082 19750428
 IC A61K031-23
 AB US 4208429 A UPAB: 19930902
 The condition of a **dog's** or **cat's** coat, which is poor
 because of lack of dietary elements or because of excessive drying, is
 improved by feeding the animal safflower oil(I) containing oil of cloves (II)
 to improve palatability.
 Opt. cod liver oil (III) is also added to further improve
 palatability and provide a source of non-vegetable **fatty**
acid. The compsn. can also contain oil-soluble vitamins A, D2 and
 E. Pref. (I) is $\geq 87\%$ of the compsn. and (III) $< 11\%$.
 Safflower oil is relatively bland and more acceptable than linseed
 oil without inducing occasional vomiting. It is also ricker in
polyunsatd. fatty acids. The compsn. makes
 the coat soft, less brittle and glossier, controls shedding and improves
 appetite. It proved acceptable to $\geq 96\%$ of **cats** and
dogs.
 FS CPI
 FA AB
 MC CPI: C04-B01C; C12-L09; D03-G01

=> => fil frosti
 FILE 'FROSTI' ENTERED AT 17:14:28 ON 15 DEC 2004
 COPYRIGHT (C) 2004 Leatherhead Food Research Association

FILE LAST UPDATED: 15 DEC 2004 <20041215/UP>
 FILE COVERS 1972 TO DATE.

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE
 IN THE BASIC INDEX (/BI) FIELD <<<

=> d all tot

L103 ANSWER 1 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
 AN 650144 FROSTI
 TI Fatty acid composition in commercial **dog foods**.
 AU Ahlstrom O.; Krogdahl A.; Vhile S.G.; Skrede A.
 SO Journal of Nutrition, 2004, (August), 134 (S8), 2145S-2147S (9 ref.)
 Published by: <http://www.nutrition.org>
 ISSN: 0022-3166
 NTE Paper presented at the Waltham International Science Symposium 'Nature,
 Nurture, and the Case for Nutrition', Bangkok, Thailand,
 DT Conference Article
 LA English
 AB Factors influencing choice of fat sources for dried extruded **dog**
food are essential **fatty acid** (EFA) content,
 melting point of fat, degree of saturation, palatability, susceptibility
 to oxidation, and cost. This study investigated the **fatty**
acid profiles of 12 brands of dry **dog food**

(including puppy foods) available in Norway. Substantial differences were observed in **fatty acid** composition and EFA content. The authors suggest that differences in n-6 and n-3 EFA levels may explain some differences in biological responses observed by **dog** owners.

SH CONVENIENCE FOODS

CT COMPOSITIONAL PROFILES; **DOG FOODS**; DRY **DOG FOODS**; DRY **PET FOODS**; ESSENTIAL FATTY ACIDS; **EXTRUDED PET FOODS**; FATTY ACID PROFILES; FATTY ACIDS; LIPIDS; NUTRITIONAL VALUE; **PET FOODS**

DED 8 Oct 2004

L103 ANSWER 2 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN

AN 649667 FROSTI

TI Oral **omega-3 fatty acid** nutritional supplement for companion animals.

IN MacKinnon W.

SO PCT Patent Application

PI WO 2004075653 A1

AI 20040205

PRAI Canada 20030228

DT Patent

LA English

SL English

AB A powdered or microencapsulated nutritional additive rich in **omega-3 fatty acids** is described for use as top dressing or the supplementation of **pet foods**. The invention can be derived from fish oil and/or seal oil and can increase serum levels of eicosapentaenoic acid and docosahexaenoic acid in companion animals such as **dogs** and **cats**. It is claimed to prevent or treat renal, dermatological, and cardiovascular diseases as well as conditions associated with inflammation in the animals. The **fatty acids** play an important role in physiological functions such as neurological development and membrane-mediated functions. The invention is convenient to use in relatively small quantities, retaining freshness and avoiding off or tainted tastes.

CT ANIMAL DISEASES; CONVENIENCE FOODS; DIETARY SUPPLEMENTS; DIETETIC FOODS; DOCOSAHEXAENOIC ACID; EICOSAPENTAENOIC ACID; ENCAPSULATION; **FATTY ACIDS**; FUNCTIONAL **PET FOODS**; LIPIDS; MICROENCAPSULATION; **OMEGA 3 FATTY ACIDS**; PATENT; PCT PATENT; **PET FOOD ADDITIVES**; **PET FOOD SUPPLEMENTS**; **POLYUNSATURATED FATTY ACIDS**

DED 30 Sep 2004

L103 ANSWER 3 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN

AN 645842 FROSTI

TI **Pet foods** plus.

AU Miraglio A.M.

SO Food Product Design, 2003, (November), supplement 'Functional Foods Annual', 33-36+38-39 (0 ref.)

Published by: <http://www.foodproductdesign.com>

ISSN: 1065-772X

DT Journal

LA English

AB This article discusses a number of issues currently affecting the market for **pet foods**, currently valued at around USD 10 billion in the US. These include the formulation of **pet food** using natural ingredients without chemical preservatives, organic **pet foods**, the raw diet, and the health issues facing **dogs** and **cats** (obesity, arthritis, allergies, the omega-6 to **omega-3 fatty acid** ratio, enhanced immunity in later years, etc.) and the foods

developed to address them. These include: low-calorie and high-fibre foods: foods supplemented with L-carnitine, glucosamine, chondroitin, omega-6 and **omega-3 fatty acids** (from fish oil or flaxseed), hexametaphosphate, antioxidants (beta-carotene, vitamins, lutein, tocopherol, rosemary extract, etc.) and selenium; and non-allergenic foods containing non-meat or low-molecular weight proteins.

SH CONVENIENCE FOODS

CT FUNCTIONAL INGREDIENTS; INGREDIENTS; **PET FOODS**

DED 17 Aug 2004

L103 ANSWER 4 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN

AN **640858** FROSTI

TI Process for enhancing **canine** and **feline** reproductive performance.

IN Kelley R.L.

PA Iams Co.

SO United States Patent

PI US 6737078 B 20040518

AI 20001122

NTE 20040518

DT Patent

LA English

SL English

AB A **pet food** containing essential **fatty acids** is described to help improve the reproductive performance of a companion animal such as a **dog** or a **cat**. The **pet food** contains a preferred ration of omega 6 and **omega 3 fatty acids**. The invention is based on the discovery that maintaining a better essential **fatty acid** status in a companion **pet** improves the reproductive performance of the **pet**, resulting in more live births, among other benefits.

CT **CAT FOODS; DOG FOODS; FUNCTIONAL PET FOODS; PATENT; PET FOODS; REPRODUCTIVE PERFORMANCE; US PATENT**

DED 17 Jun 2004

L103 ANSWER 5 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN

AN **640085** FROSTI

TI **Canine** cardiac diet.

IN Freeman L.M.; Rush J.E.

PA Mars Inc.

SO European Patent Application

PI EP 1414386 A2

WO 2003015695 20030227

AI 20020809

PRAI United States 20010810

DT Patent

LA English

SL English

AB The invention relates to a foodstuff for use in controlling cardiovascular disorders relating to or affecting the heart as well as the systemic and the pulmonary circulation of **pet** animals such as **dogs** and **cats**. The foodstuff, which comprises taurine, vitamin C, vitamin E and **polyunsaturated fatty acids**, provides various nutritional and therapeutic benefits in terms of cardiovascular health of a **dog**. The foodstuff can be used in combination with one or more conventional therapy to reduce the progression of cardiovascular disease. The foodstuff can also be administered to **dogs** with early, moderate or late stage cardiovascular disease. The invention is suitable for use as a mixture of wet and dry food and encompasses any product that an animal consumes

in its diet.

CT ADDITIVES; ANIMAL DISEASES; ANIMAL HEALTH; CARDIOVASCULAR DISEASES;
CAT FOODS; CATS; DIETARY SUPPLEMENTS; DIETETIC FOODS;
DISEASES; DOG FOODS; EUROPEAN PATENT; FATTY
ACIDS; LIPIDS; ORGANIC ACIDS; PATENT; PET FOODS;
PETS; POLYUNSATURATED FATTY ACIDS; UNSATURATED
FATTY ACIDS; VITAMIN SUPPLEMENTS; VITAMINS

DED 8 Jun 2004

L103 ANSWER 6 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN 637272 FROSTI
TI Orally administrable composition for improving hair and coat quality.
IN Pridmore-Merten S.; Lurati E.; Pourzand-Azarmehr F.; Rossio P.; Demarchez
M.
PA Nestec SA
SO PCT Patent Application
PI WO 2004024108 A1
AI 20030901
PRAI European Patent Office 20020909
DT Patent
LA English
SL English
AB A novel composition consisting of a molecule that stimulates energy
metabolism of a cell and an antioxidant is disclosed. The composition
can be a complete and nutritionally balanced food for humans or animals.
It may be in the form of a nutritional complete formula, a dairy product,
a chilled or shelf-stable beverage, soup, a meal replacement, and a
nutritional bar or a confectionery. The composition may also be a
dietary supplement, a pharmaceutical or veterinary formulation. The
nutritionally complete pet formulation may be a powder, a dried
kibble, or pellet or other dried form, extruded form, semi-moist or wet
form such as a chunk, loaf or pudding. The composition can utilise
L-carnitine, creatine, fatty acids (particularly
omega-3 fatty acids), cardiolipin,
nicotinamide or carbohydrate as the molecular component.

SH FUNCTIONAL FOODS

CT AMINES; AMINO ACIDS; ANTIOXIDANTS; BIOGENIC AMINES; CARBOHYDRATES;
CARDIOLIPIN; CARNITINE; CREATINE; DIETARY ADDITIVES; DIETARY SUPPLEMENTS;
DIETETIC FOODS; FATTY ACIDS; FUNCTIONAL FOODS;
FUNCTIONAL INGREDIENTS; FUNCTIONAL PET FOODS;
INGREDIENTS; LIPIDS; NICOTINAMIDE; OMEGA 3 FATTY ACIDS; PATENT;
PCT PATENT; PET FOODS; POLYUNSATURATED FATTY ACIDS;
VITAMINS

DED 6 May 2004

L103 ANSWER 7 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN 624673 FROSTI
TI Dietary methods for canine performance enhancement.
IN Davenport G.M.; Kelly R.L.; Altom E.K.; Lepine A.J.
PA Iams Co.
SO PCT Patent Application
PI WO 2003086100 A1
AI 20030414
PRAI United States 20020412
DT Patent
LA English
SL English
AB Improved dietary methods for sport and task animals such as hunting and
search dogs are disclosed. The methods claim to orally
administer an effective amount of a diet consisting of eicosapentaenoic
acid, docosahexaenoic acid or both to improve the physical and cognitive
performance of the animals. They improve diet metabolism, olfactory
perception, responsiveness to Pavlovian conditioning, and target

detection of prey animals or search objects. The methods increase the hunt or search performance and the heat endurance of the animals. They are also claimed to increase the energy level of animals to provide an increased feeling of well-being, alertness, and lower body temperature during periods of high physical activity and caloric expenditure. The invention is particularly suitable for an English Pointer **dog**.

CT DIETARY SUPPLEMENTS; DIETETIC FOODS; DOCOSAHEXAENOIC ACID;
EICOSAPENTAENOIC ACID; **FATTY ACIDS**; LIPIDS;
OMEGA 3 FATTY ACIDS; PATENT; PCT PATENT; **PET**
FOOD ADDITIVES; **PET FOOD SUPPLEMENTS**;
PET FOODS; **POLYUNSATURATED FATTY ACIDS**; SPORTS ANIMALS

DED 9 Dec 2003

L103 ANSWER 8 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN

AN 618972 FROSTI

TI Oil including **omega-3 fatty acids**
with therapeutic properties.

IN Gasso Casademunt F.

PA Proyecto Empresarial Brudy SL

SO PCT Patent Application

PI WO 2003063610 A1

AI 20030121

PRAI Spain 20020129

DT Patent

LA English

SL English

AB A novel oil product consisting of at least one **omega-3 fatty acid** as a substitute of an antibiotic for non-human animal consumption is disclosed. The oil product acts as an antibacterial agent, a growth stimulant agent, and an anticoccidiostatic agent when added to the animal feed. The invention claims to maintain the optimum state of health of the animals, in addition to optimizing their growth and production of meat and eggs. It is said to achieve a high-quality meat product, while avoiding the characteristic residues produced when drugs are used. The invention also reinforces the immune system so that it is not specific to a particular infectious agent and the development of resistance is hindered. The invention is suitable for industrial fattening or production of animals such as lambs and for **pet** animals.

CT ANTIBACTERIALS; ANTIMICROBIALS; CONVENIENCE FOODS; **FATTY ACIDS**; FEED ADDITIVES; FEED SUPPLEMENTS; FEEDS; LIPIDS;
OMEGA 3 FATTY ACIDS; PATENT; PCT PATENT; **PET**
FOOD ADDITIVES; **PET FOOD SUPPLEMENTS**;
PET FOODS; **POLYUNSATURATED FATTY ACIDS**

DED 23 Sep 2003

L103 ANSWER 9 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN

AN 618803 FROSTI

TI Healthy trends in **pet** nutrition.

AU Anon.

SO Nutraceuticals World, 2003, (March), 6 (3), 68-72 (4pp), (0 ref.)
Published by: Rodman Publishing Corporation. Address: 70 Hilltop Road,
Ramsey, NJ 07446, USA. Telephone: +1 (201) 825 2552. Fax: +1 (201) 825
0553. Web: www.nutraceuticalsworld.com
ISSN: 1531-0671

DT Journal

LA English

SL English

AB Healthy trends in **pet** nutrition are discussed with respect to joint therapy, skin and coat, and obesity. A combination of glucosamine and chondroitin is used to relieve pain and inflammation in the joints, as is green lipped mussel. **Omega-3 fatty acids** improve the health of the skin and coat.

Calorie-restricted diets may contain defatted jojoba meal, L-carnitine and chromium to decrease intake and body fat, whilst enhancing lean body mass and energy expenditure.

SH CONVENIENCE FOODS
CT AMINES; AMINO NITROGEN COMPOUNDS; AMINO SUGARS; ANIMAL DIETS; ANIMAL JOINTS; BIOGENIC AMINES; CARNITINE; CHONDROITIN; CHROMIUM; DEFATTED JOJOBA MEAL; **FATTY ACIDS**; FUNCTIONAL **PET** **FOODS**; GLUCOSAMINE; GREEN LIPPED MUSSEL; LIPIDS; OBESITY; **OMEGA 3 FATTY ACIDS**; **PET** COATS; **PET** **FOODS**; **PET** SKIN; **PETS**; **POLYUNSATURATED FATTY ACIDS**; SUGARS; TRACE ELEMENTS
DED 23 Sep 2003

L103 ANSWER 10 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN **614026** FROSTI
TI Safe and effective?
AU Dzanis D.
SO Petfood Industry, 2003, (May), 45 (5), 11-16 (4pp) (1 ref.)
Published by: Petfood Industry, Watt Publishing Co. Address: 122 S. Wesley Ave., Mt. Morris, IL 61054-1497, USA. Telephone: +1 (815) 734 4171. Fax: +1 (815) 734 9091. Web: www.wattnet.com
ISSN: 0031-6245
DT Journal
LA English
AB The inclusion of novel ingredients in **pet foods** and supplements has become increasingly popular. Substances allowed for human consumption might still be unapproved food additives when used in animal feeds. The safety and efficacy of these novel ingredients are discussed in relation to studies in **cats** and **dogs**. Various combinations of antioxidants fed to **dogs** and/or **cats** have been reported to improve serum vitamin E status, suppress lipid peroxidation, normalize the adverse effects of exercise on the immune system, improve the length of response to vaccination and improve cognitive function. The use and safety of antioxidants, chondroprotective agents, **omega-3 fatty acids**, prebiotics, probiotics and enzymes, and herbs and botanicals are discussed. Chromium, carnitine and brewers' yeast are also considered. Vitamin E is essential in the diets of **cats** and **dogs** for its antioxidant properties. A role for vitamin C supplementation of stressed working **dogs** has been proposed. High levels of vitamin E intake might interfere with absorption of other fat-soluble vitamins. Beneficial effects of glucosamine and chondroitin sulfate for osteoarthritis, **omega-3 fatty acids** and immune response, and prebiotic fibres such as inulin and fructooligosaccharides are considered, together with toxicosis in **dogs** following consumption of human dietary supplements containing stimulants.

SH CONVENIENCE FOODS
CT AMINO NITROGEN COMPOUNDS; AMINO SUGARS; ANTIOXIDANTS; BT HERBAL DRUGS; CHONDROITIN SULFATE; EFFICIENCY; ENZYMES; ESSENCES; EXTRACTS; **FATTY ACIDS**; FOOD SAFETY; GLUCOSAMINE; HERB EXTRACTS; NOVEL INGREDIENTS; **OMEGA 3 FATTY ACIDS**; ORGANIC ACIDS; **PET** **FOODS**; PLANT EXTRACTS; **POLYUNSATURATED FATTY ACIDS**; PREBIOTICS; PROBIOTICS; SAFETY; SUGARS
DED 15 Jul 2003

L103 ANSWER 11 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN **607415** FROSTI
TI **Canine** cardiac diet.
IN Freeman L.M.; Rush J.E.
PA Mars Inc.
SO PCT Patent Application
PI WO 2003015695 A2

AI 20020809
PRAI United States 20010810
DT Patent
LA English
SL English
AB The invention relates to a foodstuff for use in controlling cardiovascular disorders relating to or affecting the heart as well as the systemic and the pulmonary circulation of **pet** animals such as **dogs** and **cats**. The foodstuff, which comprises taurine, vitamin C, vitamin E and **polyunsaturated fatty acids**, provides various nutritional and therapeutic benefits in terms of cardiovascular health of a **dog**. The foodstuff can be used in combination with one or more conventional therapy to reduce the progression of cardiovascular disease. The foodstuff can also be administered to **dogs** with early, moderate or late stage cardiovascular disease. The invention is suitable for use as a mixture of wet and dry food and encompasses any product that an animal consumes in its diet.

CT ANIMAL DISEASES; ANIMAL HEALTH; CARDIOVASCULAR DISEASES; **CAT FOODS; CATS; DOG FOODS; FATTY ACIDS; LIPIDS; PATENT; PCT PATENT; PET FOOD ADDITIVES; PET FOODS; POLYUNSATURATED FATTY ACIDS; UNSATURATED FATTY ACIDS; VITAMIN SUPPLEMENTS; VITAMINS**

DED 10 Apr 2003

L103 ANSWER 12 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN **604705** FROSTI
TI **Pet food** composition for reducing inflammatory response in **cats**.
IN Hayek M.G.; Reinhart G.A.
PA Iams Co.
SO European Patent Application
PI EP 1280416 A1
WO 2001082720 20011108

AI 20010430
PRAI United States 20000501
DT Patent
LA English
SL English
AB A **pet food** composition that can reduce the inflammatory response in **cats**, without any side effects, is described. The composition contains **omega-3(n-3) fatty acids**, especially alpha-linolenic acid. Flaxseed oil is the preferred source of alpha-linolenic acid. The inflammatory response can cause significant health problems, such as inflammatory bowel disease, arthritis and dermatitis.

CT ANTIINFLAMMATORIES; **CAT FOODS; EUROPEAN PATENT; FATTY ACIDS; FUNCTIONAL PET FOODS; LINOLEIC ACID; LIPIDS; OMEGA 3 FATTY ACIDS; OMEGA 6 FATTY ACIDS; ORGANIC ACIDS; PATENT; PET FOODS; POLYUNSATURATED FATTY ACIDS; UNSATURATED FATTY ACIDS**

DED 7 Mar 2003

L103 ANSWER 13 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN **599206** FROSTI
TI Method for improving bone modeling and chondrocyte functioning in growing **canines**.
IN Watkins B.A.; Lepine A.J.; Hayek M.G.; Reinhart G.A.
PA Iams Co.
SO European Patent Application

PI EP 1255546 A1
AI 20010216
PRAI United States 20000217
DT Patent
LA English
SL English
AB A **dog food** fortified with appropriate amounts of dietary n-6 and **n-3 fatty acids** for healthier and faster growing bones is disclosed. The invention specifically stimulates bone development and chondrocyte functioning in growing **canines**. The amount of **n-3 fatty acids** in the **pet food** and the ratio of n-6 to **n-3 fatty acids** are important in promoting synthesis and tissue accumulation of down-regulating elements of inflammation. Preferably, the **n-3 fatty acids** consist of eicosapentaenoic acid and docosahexaenoic acid. The composition may also contain crude protein, fat, dietary fibre, and carbohydrates, although there are no required ratios or percentages for these nutrients.

CT ACIDS; ADDITIVES; ANIMAL BONES; ANIMAL HEALTH; DIETARY ADDITIVES; DIETARY SUPPLEMENTS; DIETETIC FOODS; **DOG FOODS**; **DOGS**; EUROPEAN PATENT; FATTY ACIDS; FUNCTIONAL FOODS; FUNCTIONAL **PET FOODS**; GROWTH; GROWTH FACTORS; GROWTH PROMOTERS; HUMAN GROWTH; LIPIDS; OFFAL; ORGANIC ACIDS; PATENT; **PET FOODS**; **PETS**

DED 9 Jan 2003

L103 ANSWER 14 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN **590926** FROSTI
TI Method for improving bone modeling and chondrocyte functioning in growing **canines**.
IN Watkins B.A.; Lepine A.J.; Hayek M.G.; Reinhart G.A.
PA Iams Co.
SO United States Patent
PI US 6426100 B 20020730
AI 20010216
NTE 20020730
DT Patent
LA English
SL English
AB A **dog food** fortified with appropriate amounts of dietary n-6 and **n-3 fatty acids** for healthier and faster growing bones is disclosed. The invention specifically stimulates bone development and chondrocyte functioning in growing **canines**. The amount of **n-3 fatty acids** in the **pet food** and the ratio of n-6 to **n-3 fatty acids** are important in promoting synthesis and tissue accumulation of down-regulating elements of inflammation. Preferably, the **n-3 fatty acids** consist of eicosapentaenoic acid and docosahexaenoic acid. The composition may also contain crude protein, fat, dietary fibre, and carbohydrates, although there are no required ratios or percentages for these nutrients.

CT ADDITIVES; ANIMAL BONES; ANIMAL HEALTH; DIETARY ADDITIVES; DIETARY SUPPLEMENTS; DIETETIC FOODS; **DOG FOODS**; **DOGS**; FATTY ACIDS; FUNCTIONAL FOODS; FUNCTIONAL **PET FOODS**; GROWTH; GROWTH FACTORS; GROWTH PROMOTERS; HUMAN GROWTH; LIPIDS; OFFAL; ORGANIC ACIDS; PATENT; **PET FOODS**; **PETS**; US PATENT

DED 10 Sep 2002

L103 ANSWER 15 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN **588730** FROSTI
TI **Pet** nutraceuticals. Hype or wave of the future?
AU Brown L.P.

- SO Nutraceuticals World, 2001, (January-February), 4 (1), 34-36+38-41 (13 ref.)
Published by: Rodman Publishing Corporation. Address: 70 Hilltop Road, Ramsey, NJ 07446, USA. Telephone: +1 (201) 825 2552. Fax: +1 (201) 825 0553. Web: www.nutraceuticalsworld.com
ISSN: 1531-0671
- DT Journal
LA English
AB Consumer demands for functional foods and beverages have led to **pet** product companies producing speciality foods, treats, and therapeutic supplements for **pets**. This article considers trends in **pet foods** and supplements and how they have paralleled those in beverages, foods and supplements designed for humans. **Pet** product regulations in the US are discussed and requirements of new products are listed. Nutraceutical **pet** products are discussed with specific reference to the following categories of **pet** dietary supplements: supplemental glucosamine for joint health; antioxidant protection from free radical damage; use of **omega-3 fatty acids** in **pet foods** and supplements to reduce signs of allergies and skin inflammatory dysfunctions; and others including St John's wort, green food products, and probiotics. Fortified **pet foods** are also discussed. Finally, new **pet** nutraceuticals produced by Olympian Labs, Scottsdale, Arizona, are reviewed.
- SH CONVENIENCE FOODS
CT DIETARY SUPPLEMENTS; DIETETIC FOODS; FORTIFIED FOODS; FUNCTIONAL FOODS; FUNCTIONAL **PET FOODS**; HEALTH BENEFITS; NEW PRODUCTS; **PET FOODS**; **PETS**; PROBIOTICS
DED 6 Aug 2002
- L103 ANSWER 16 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN 574622 FROSTI
TI **Pet foods** using algal or fungal waste containing fatty acids.
IN Criggall J.G.; Trivedi N.B.; Hutton J.P.
PA Applied Food Biotechnology Inc.
SO United States Patent
PI US 6338866 B 20010823
AI 20010215
NTE 20010823
DT Patent
LA English
SL English
AB Healthy and nutritious **pet foods** and **pet food** enhancers are useful for **cats**, **dogs**, ferrets and pot-bellied pigs. They are produced cost-effectively from residual docosaheptaenoic acid-containing algal biomass waste products. The waste is mixed with brewers' yeast, a grain product such as wholewheat, and water to form a dough that is shaped and cooked. When used as a flavour enhancer, the algal biomass can be incorporated with other additives to coat pelleted or extruded chunks (kibbles).
CT ALGAE; ALGAL PRODUCTS; ALGAL WASTE; DIETARY SUPPLEMENTS; DIETETIC FOODS; DOCOSAHEPTAENOIC ACID; **FATTY ACIDS**; LIPIDS; **OMEGA 3 FATTY ACIDS**; PATENT; **PET BISCUITS**; **PET FOODS**; **POLYUNSATURATED FATTY ACIDS**; US PATENT; WASTES
DED 8 Feb 2002
- L103 ANSWER 17 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN 570338 FROSTI
TI **Pet food** composition for reducing inflammatory response in **cats**.
IN Hayek M.G.; Reinhart G.A.
PA Iams Co.

SO PCT Patent Application
PI WO 2001082720 A1 20011108
AI 20010430
PRAI United States 20000501
NTE 20011108
DT Patent
LA English
SL English
AB A **pet food** composition that can reduce the inflammatory response in **cats**, without any side effects, is described. The composition contains **omega-3(n-3) fatty acids**, especially alpha-linolenic acid. Flaxseed oil is the preferred source of alpha-linolenic acid. The inflammatory response can cause significant health problems, such as inflammatory bowel disease, arthritis and dermatitis.

CT ANTIINFLAMMATORIES; **CAT FOODS**; **FATTY ACIDS**; FUNCTIONAL **PET FOODS**; LINOLEIC ACID; LIPIDS; **OMEGA 3 FATTY ACIDS**; **OMEGA 6 FATTY ACIDS**; PATENT; PCT PATENT; **PET FOODS**; POLYUNSATURATED **FATTY ACIDS**

DED 11 Dec 2001

L103 ANSWER 18 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN **560946** FROSTI
TI Recent advantages in **pet** nutrition, Part 2.
AU Earle K.
SO Feed Tech, 2001, 5 (4), 42-44 (0 ref.)
Published by: Elsevier International Business Information Address: PO Box 4, 7000 BA Doetinchem, The Netherlands Telephone: +31 (314) 349562
Fax: +31 (314) 340515 Email: d.ziggers@ebi.nl
ISSN: 1387-1978

DT Journal
LA English
AB This second of two articles on developments in **pet** nutrition considers products for improving skin and coat health, dental health, and intestinal health, and for preventing signs of ageing. As well as nutrients required for optimum skin condition, bioavailability should be considered. There is current debate over identifying optimum levels of omega-6 and **omega-3 fatty acids**.
Tooth loss and poor oral health are significant problems in older **cats** and **dogs**; findings are summarized from a feeding study of a functional dry **cat food**. Overweight and obesity are increasing in **dogs** in developed countries, with risk of chronic disease; supplementation has been investigated for accelerating weight loss. Prebiotics such as whole chicory root have been used for improving intestinal health in **dogs** and **cats**.

SH CONVENIENCE FOODS
CT AGE; **CAT FOODS**; **CATS**; DEVELOPMENT; DIETARY SUPPLEMENTS; DIETETIC FOODS; **DOG FOODS**; **DOGS**; DRY **CAT FOODS**; DRY **PET FOODS**; FUNCTIONAL SUPPLEMENTS; HEALTH; NUTRITIONAL STATUS; **PET FOODS**; **PETS**; PREBIOTICS

DED 17 Aug 2001

L103 ANSWER 19 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN **554294** FROSTI
TI Conjugated linoleic acid for weight reduction in a **dog**.
IN Lowe J.
PA Gilbertson and Page Ltd
SO UK Patent Application
PI GB 2355382 A

AI 19990824
DT Patent
LA English
SL English
AB Conjugated linoleic acid (CLA) may be used for weight reduction in obese dogs. The composition may contain raw rice, fish and vegetable matter such as wheat, maize or soya, with dietary fibre, vitamins, minerals and trace elements. Extruded product may be coated in a duck-based digest. Moisture accounts for less than 6%; CLA, present as cis-9, trans-11 octadecadienoic acid, accounts for about 7 g/kg of composition. The composition should be given at a dose of 0.15 ml/kg in conjunction with exercise. The palatability of the composition ensures compliance from the dog, whilst the visible effects of the diet ensure owner compliance.

CT CONJUGATED FATTY ACIDS; CONJUGATED LINOLEIC ACID; DOG FOODS; FATTY ACIDS; FUNCTIONAL PET FOODS; LINOLEIC ACID; LIPIDS; OMEGA 6 FATTY ACIDS; ORGANIC ACIDS; PATENT; PET FOODS; POLYUNSATURATED FATTY ACIDS; UK PATENT

DED 6 Jun 2001

L103 ANSWER 20 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN 538695 FROSTI
TI Omega fatty acids, pets and health.
AU Ziggers D.
SO Feed Tech, 2000, 4 (7), 36-37 (0 ref.)
Published by: Elsevier International Business Information Address: PO Box 4, 7000 BA Doetinchem, The Netherlands Telephone: +31 (314) 349562 Fax: +31 (314) 340515 Email: d.ziggers@ebi.nl ISSN: 1387-1978

DT Journal
LA English
AB The role of essential fatty acids in the diet of cats and dogs, in particular omega-3 fatty acids found in flaxseed, is discussed. Essential fatty acids are good for treating skin disorders, such as allergic skin reactions to pollens or moulds. The author describes the role of fat in the human diet, and in the diets of cats and dogs, together with details of the fatty acids required by cats and dogs. He also describes the four main families of unsaturated fatty acids (data are tabulated), interconversion of omega-3 and omega-6 fatty acids, and flaxseed as a source of omega-3 fatty acids.

SH CONVENIENCE FOODS
CT BASIC GUIDE; CAT FOODS; DIET; DOG FOODS; ESSENTIAL FATTY ACIDS; FATTY ACIDS; FLAXSEED; LIPIDS; OILSEEDS; OMEGA 3 FATTY ACIDS; ORGANIC ACIDS; PET FOODS

DED 1 Dec 2000

L103 ANSWER 21 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN 538128 FROSTI
TI Nutritional supplements for the pet with heart disease.
AU Kettenacker R.W.; Eves B.E.
SO Journal of the American Nutraceutical Association, 2000, (Summer), 3 (2), 61-64 (44 ref.)
Published by: American Nutraceutical Association Address: 22 Inverness Center Parkway, Suite 150, Birmingham, AL 35242, USA Telephone: +1 (205) 980 5710 Fax: +1 (205) 991 9302 Web: www.americanutra.com

DT Journal
LA English
AB Specific nutrients have been shown to be beneficial as adjuncts to

conventional drug therapies. The use of taurine supplements to prevent dilated cardiomyopathy in **cats** and **dogs** is described. The association between L-carnitine deficiencies in the myocardium and cardiomyopathies in some **dog** breeds is discussed. The benefits of coenzyme Q10 (ubiquinone) supplementation, long-chain **n-3 polyunsaturated fatty acid** supplementation, and magnesium supplementation in **cats** and **dogs** with heart disease are reviewed.

SH CONVENIENCE FOODS
CT CARDIOVASCULAR DISEASES; CARNITINE; COENZYME Q10; COENZYMES; DIETARY SUPPLEMENTS; DIETETIC FOODS; DISEASES; DRUGS; **FATTY ACIDS**; HEART DISEASE; L CARNITINE; LIPIDS; MAGNESIUM; **OMEGA 3 FATTY ACIDS**; **PETS**; **POLYUNSATURATED FATTY ACIDS**; TRACE ELEMENTS; VETERINARY DRUGS
DED 23 Nov 2000

L103 ANSWER 22 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN 528832 FROSTI
TI Dietary compositions and method for promoting healthy weight loss **cats**.
IN Sunvold G.D.
PA Iams Co.
SO United States Patent
PI US 6071544 B 20000606
AI 19990401
NTE 20000606
DT Patent
LA English
SL English
AB From 10 to 40% of **cats** have been reported as overweight, making them more prone to a variety of diseases. This **cat food** provides a combination of **fatty acids** and proteins, which are claimed to promote weight loss, whilst minimizing the risk of diseases such as hepatic lipidosis. Preferably, the dry weight feed contains 28-50% protein, and 7-14% fat, of which 0.2-1.5% is made up of the **polyunsaturated fatty acids** C18:3, C20:4, C20:5, and C22:6. The feed has been shown to promote weight loss, reduce levels of free **fatty acids**, and increase those of HDL cholesterol.
CT **CAT FOODS**; **FATTY ACIDS**; HEALTH **PET FOODS**; LIPIDS; PATENT; **PET FOODS**; **POLYUNSATURATED FATTY ACIDS**; SLIMMING **PET FOODS**; UNSATURATED **FATTY ACIDS**; US PATENT
DED 4 Aug 2000

L103 ANSWER 23 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN 491479 FROSTI
TI Is there a role for dietary **polyunsaturated fatty acid** supplementation in **canine** renal disease?
AU Brown S.A.; Finco D.R.; Brown C.A.
SO Journal of Nutrition, 1998, (December), 128 (12S), 2765S-2767S (25 ref.)
ISSN: 0022-3166
NTE Waltham International Symposium on Pet Nutrition and Health in the 21st Century, 25-29 May 1997, Orlando, Florida.
DT Journal
LA English
SL English
AB Spontaneous renal diseases are a frequent cause of illness and death in **dogs**, especially in elderly **dogs**. **Dogs** with these diseases often develop progressive uraemia. However, the effects of dietary **polyunsaturated fatty acid** (PUFA) composition have been poorly characterized in **dogs** with chronic renal disease. The hypothesis that dietary PUFA supplementation may delay

the progression of chronic renal insufficiency in **dogs** was examined. Dietary supplementation with (n-3) PUFA prevented the deterioration of the glomerular filtration rate and preserved renal structure. This could alter renal haemodynamics and the long-term course of renal injury in **dogs**.

SH NUTRITION
CT DIET; DIETARY SUPPLEMENTATION; **FATTY ACIDS**;
NUTRITION; **POLYUNSATURATED FATTY ACIDS**; RENAL DISEASE
DED 21 Apr 1999

L103 ANSWER 24 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN **478444** FROSTI
TI Utilization of **omega-3 fatty acids**
in companion animal nutrition.
AU Hayek M.G.; Reinhart G.A.
SO The return of omega-3 fatty acids into the food supply, volume 1:
land-based animal food products and their health effects: proceedings of
the international conference, Bethesda, September 1997., Published by:
Karger, Basel, 1998, 176-185 (58 ref.)
Simopoulos A.P.
ISBN: 3-8055-6694-8
DT Conference Article
LA English
AB The authors observe that inflammatory dermatological conditions are
common in **dogs** and **cats**; and that a balanced ratio of
omega-6:**omega-3 fatty acids** is
essential, and represents an effective therapy for these complaints in
companion animals.
SH CONVENIENCE FOODS
CT ANIMAL DISEASES; **CATS**; **DOGS**; **FATTY**
ACIDS; **OMEGA 3 FATTY ACIDS**; **OMEGA 6 FATTY**
ACIDS; **PETS**; PREVENTION; VETERINARY TREATMENT
DED 28 Oct 1998

L103 ANSWER 25 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN **398116** FROSTI
TI **Pet food** product containing omega-6 and **omega**
-3 fatty acids.
IN Reinhart G.A.
PA Iams Co.
SO European Patent Application
PI EP 678247 A1
DS BE; DE; FR; GB
AI 19950418
PRAI United States 19940418
DT Patent
LA English
SL English
AB A **pet-food** that reduces inflammatory and allergic
skin responses is described. **Pet** animals fed on a diet
consisting essentially of the proposed **pet-food** have
an improved skin appearance. The proposed **pet-food**
contains omega-6 and **omega-3 fatty**
acids. The preferred **omega-3** source is fish
oil and flax. The proposed **pet-food** is suitable for
a wide range of **pets**, but it is used preferably to treat
dogs.
CT APPEARANCE; EUROPEAN PATENT; IMPROVEMENT; **PET FOODS**;
PROPERTIES; SKIN
DED 15 Jan 1996

L103 ANSWER 26 OF 26 FROSTI COPYRIGHT 2004 LFRA on STN
AN **321785** FROSTI

TI A food product for **pets**.
 IN Oleson K.
 SO British Patent Application
 PI GB 2262427 A
 AI 19921019
 PRAI Denmark 19911106
 DT Patent
 LA English
 SL English
 AB A **petfood** product, which is mainly made of flesh from fish of the species Salmonides, is described, as is the method of its manufacture into **dog** biscuits. The **dog** biscuit is claimed to have an attractive smell and taste to **dogs**, and since it contains **omega-3 fatty acids** is beneficial to **dogs'** health.
 CT BISCUITS; DOG FOODS; DOGS; FATTY ACIDS; FISH; HEALTH; OMEGA 3; OMEGA 3 FATTY ACIDS; PATENTS; PET FOODS; PRODUCTION; PROPERTIES; SENSORY; SENSORY PROPERTIES
 DED 23 Jul 1993

=> => d all 1101

L101 ANSWER 1 OF 1 FROSTI COPYRIGHT 2004 LFRA on STN
 AN 633117 FROSTI.
 TI Synergistic effect of diet and human interaction on the **behavior** of **dogs**.
 IN Davenport G.M.; Hennessy M.B.
 PA IAMS Co.
 SO PCT Patent Application
 PI WO 2004006688 A1
 AI 20030709
 PRAI United States 20020712
 DT Patent
 LA English
 SL English
 AB A novel method for moderating the **behaviour** of a **dog** living in an animal shelter utilizes the synergistic effect of feeding a high quality diet and periodic interaction with a human. The invention is claimed to reduce levels of stress hormones such as adrenocorticotrophic hormone, hypothalamic-pituitary-adrenal, and cortisol in an animal living in a shelter. The diet is typically administered on an infrequent or as-needed basis or preferably in a more routine manner, e.g., once, twice or three times daily. The method claims to improve a **dog's** adaptation to the shelter using a diet consisting of high amounts of docosahexaenoic acid and eicosapentaenoic acid. It also claims to enhance successful adoption rates and the well-being of the animal.
 CT ANIMAL DIET; ANIMAL HEALTH; **ANIMAL WELFARE**; DIETETIC FOODS; DOCOSAHEXAENOIC ACID; DOG FOODS; EICOSAPENTAENOIC ACID; FATTY ACIDS; LIPIDS; OMEGA 3 FATTY ACIDS; PATENT; PCT PATENT; PET FOOD ADDITIVES; PET FOOD SUPPLEMENTS; PET FOODS; POLYUNSATURATED FATTY ACIDS
 DED 18 Mar 2004

=> d his

(FILE 'HOME' ENTERED AT 16:17:39 ON 15 DEC 2004)
 SET COST OFF

FILE 'HCAPLUS' ENTERED AT 16:17:58 ON 15 DEC 2004

L1 1 S US20040068010/PN OR US2002-065326#/AP,PRN
E OMEGA/CT
E E7+ALL

L2 5231 S E2
E FATTY ACIDS/CT

L3 5909 S E3 (L) (OMEGA3 OR OMEGA 3 OR N 3)
E FATTY ACIDS (L) POLYUNSAT/CT

L4 5688 S E12,E14,E15

L5 5909 S L2-L4
E BEHAVIOR/CT

L6 55 S E3-E128 AND L5
E E3+ALL

L7 132 S E2+NT AND L5
E BEHAVIOR/CT
E E4+ALL

L8 55 S E2 AND L5

L9 132 S L6-L8
E DOG/CT
E E3+ALL

L10 9780 S E1 OR E2+NT OR E3+NT
E E2+ALL

L11 12073 S E8-E10,E7+NT
E CAT/CT

L12 2069 S E3-E7
E E3+ALL

L13 4293 S E1 OR E2+NT OR E3+NT
E E2+ALL

L14 5533 S E8-E10,E7+NT
E E6+ALL

L15 5616 S E6+NT
E CAT/CT
E E3+ALL
E E3+ALL

L16 270 S E6
E DOG/CT
E E3+ALL
E E3+ALL

L17 572 S E6
E PET/CT
E E10+ALL

L18 546 S E5,E4

L19 2 S L9 AND L10-L18

L20 2 S L9 AND (PETFOOD? OR (DOG OR CAT OR PET) (L) (FOOD? OR FEED? OR

L21 3 S L19,L20

L22 2 S L21 NOT COSMETIC/TI
E ZICKER S/AU

L23 20 S E3-E7
E DODD C/AU

L24 30 S E3,E8,E9,E23
E JEWELL D/AU

L25 150 S E3-E11,E9-E23
E FRITSCH D/AU

L26 33 S E3-E5

L27 27 S L5 AND HILL?/PA,CS

L28 3 S L5 AND (COLGATE? OR PALMOLIV?)/PA,CS

L29 5 S L5 AND L23-L26

L30 35 S L27-L29

L31 1 S L30 AND L9

L32 2 S L22,L31

L33 34 S L30 NOT L32

L34 10 S L33 AND (DOG? OR CAT? OR PET? OR CANI? OR FELI?)

L35 6 S L33 AND (DOG? OR CAT? OR PET? OR CANI? OR FELI?)/CT

L36 10 S L34,L35
 L37 7 S L36 NOT (CATTLE OR RAT)
 L38 24 S L33 NOT L36
 L39 9 S L32,L37 AND L1-L38
 L40 130 S L9 NOT L19,L39
 L41 61 S L40 AND BEHAV?
 L42 45 S L41 AND (ANIMAL(L)NUTRI?)/SC,SX
 L43 16 S L42 NOT (MICE OR MOUSE OR RAT)
 L44 12 S L43 NOT CHILD
 L45 2 S L44 AND MONKEY
 L46 10 S L44 NOT L45
 SEL DN AN 5 6 7 10
 L47 4 S L46 AND E1-E12
 L48 15 S L39,L45,L47

FILE 'HCAPLUS' ENTERED AT 16:38:03 ON 15 DEC 2004

FILE 'MEDLINE' ENTERED AT 16:39:40 ON 15 DEC 2004

E OMEGA/CT
 E E7+ALL
 L49 3005 S E2
 E E2+ALL
 L50 6821 S E17+NT
 L51 6821 S L49,L50
 E DOG/CT
 E E6+ALL
 L52 28998 S E3+NT
 E DOGS/CT
 E E3+ALL
 L53 227893 S E7+NT
 E CAT/CT
 L54 11839 S E13+NT
 E CATS/CT
 L55 103179 S E3+NT
 E PET/CT
 E E3+ALL
 E E2+ALL
 L56 8897 S E4+NT
 L57 103 S L51 AND L52-L56
 L58 0 S L57 AND (F3. OR F4.)/CT
 L59 2 S L57 AND (F1. OR F2.)/CT
 L60 1 S L59 AND BEHAV?

FILE 'MEDLINE' ENTERED AT 16:43:26 ON 15 DEC 2004

FILE 'BIOSIS' ENTERED AT 16:43:58 ON 15 DEC 2004

L61 9846 S FATTY ACID (L) (OMEGA3 OR N 3 OR OMEGA 3)
 E DOG/BC
 E CANI/BC
 L62 109 S E4+NT AND L61
 E FELI/BC
 L63 28 S E4+NT AND L61
 L64 124 S L62,L63
 L65 3 S L64 AND BEHAV?
 L66 1 S L65 NOT (HYPOXIC OR SLAUGHTERHOUSE)/TI
 L67 2 S 07003/CC AND L64
 L68 1 S L66 AND L67

FILE 'BIOSIS' ENTERED AT 16:47:40 ON 15 DEC 2004

FILE 'WPIX' ENTERED AT 16:47:51 ON 15 DEC 2004

L69 1216 S L61/BIX
 L70 1173 S ((FATTY ACID) (L) POLYUNSAT?)/BIX

L71 2140 S L69,L70
 L72 202 S L71 AND D03-G?/MC
 L73 189 S L71 AND A23K001/IPC
 L74 251 S L72,L73
 L75 2 S L74 AND BEHAV?/BIX
 L76 60 S Q214/M0,M1,M2,M3,M4,M5,M6 AND L71
 L77 2 S L76 AND BEHAV?/BIX
 L78 2 S L75,L77
 L79 259 S L74,L76 NOT L78
 L80 77 S L79 AND (DOG? OR CAT? OR PET?)/BIX
 L81 7 S L79 AND (CANIS? OR CANIN? OR FELIS? OR FELIN?)/BIX
 L82 79 S L80,L81
 L83 12 S L82 AND (PET OF DOG OR CAT OR PUPPIES OR CANINE OR ANIMAL NUT
 L84 14 S L78,L83
 L85 180 S L79 NOT L82
 L86 97 S L85 AND ANIMAL?/BIX
 L87 83 S L85 NOT L86

FILE 'WPIX' ENTERED AT 17:06:02 ON 15 DEC 2004

FILE 'FROSTI' ENTERED AT 17:06:22 ON 15 DEC 2004

L88 3991 S L61
 L89 6434 S FATTY ACID (L) (POLYUNSAT? OR POLY UNSAT?)
 L90 7684 S L88,L89
 E POLYUNSATURATED FATTY ACID/CT
 L91 3614 S E7+NT
 E OMEGA/CT
 L92 2362 S E16+NT
 L93 7684 S L90-L92
 E PET FOOD/CT
 L94 42 S L93 AND (PETFOOD? OR PET FOOD?)
 L95 20 S L93 AND (DOGFOOD? OR DOG FOOD? OR CATFOOD? OR CAT FOOD?)
 L96 72 S L93 AND (DOG OR CAT OR PET OR CANIN? OR CANIS? OR FELIN? OR F
 L97 72 S L94-L96
 E PET FOODS/CT
 E E3+ALL
 L98 35 S E1+NT AND L93
 L99 72 S L97,L98
 L100 2 S L99 AND BEHAV?
 L101 1 S L100 AND ANIMAL WELFARE/CT
 L102 70 S L99 NOT L100
 SEL AN 1 3 5 6 7 10 15-18 22 24 26 30-32 34 36 39 40 42 43 51 5
 L103 26 S L102 AND E1-E26

FILE 'FROSTI' ENTERED AT 17:14:28 ON 15 DEC 2004

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